NEW-ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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JOEL NOURSE, PROPRIETOR.
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CALENDAR FOR JUNE.

"Tough thistles choked the fields and killed the corn,
And an unthrifty crop of weeds was born,
Then burs and brambles, an unbidden crew
Of graceless guests, the unhappy fields subdue;
And oats unbleat, and darnel domineers,
And shoots its head above the shining ears,
So that unless the land with daily care
Is exercised, and with an iron war
Of rakes and harrows the proud foes expelled,
And birds with clamors frighted from the field;
Unless the boughs are lopped that shade the plain,
And heaven invoked with vows for fruitful rain,
On other crops you may with envy look,
And shake for food the long abandoned oak."

JUNE is a busy month. The sun shines in our latitude more hours, this month, than in any month in the year. His rays are sending their all-penetrating force into the most hidden recesses of animated nature, and under his stimulating influence, she is driving, in full tide, the life-blood through every artery and sap-vessel of every living thing. All nature is glowing with fervid life. The grain is green in the fields. The leaves upon the trees are fast attaining their full size, and every leaf, in all its vessels, is elaborating the sap from which the fruit and the growing wood are being formed. The seeds have germinated and are pushing up into the air their delicate plumules, that they may imbibe the breath of heaven, and also throwing their radicles into the soil. The blades of corn are shooting up green and succulent, and soon will come the ear, and then the full corn in the ear. The plants in the garden are expanding their leaves and filling the soil with their rootlets, and each is struggling to secure possession of as much space as possible, for its further development. They all need watching and cherishing, and a large portion of them must be sacrificed, to make room for the remainder. It requires no small share of resolution to pull up fine, thrifty plants, to give space for those that are to remain till autumn, but it must be done, or we shall fail to find well-grown and fully-developed vegetables, in the time of harvest. Through the growing season, the soil must be kept mellow and light. The hoe and the rake must be busily plied through this month in the garden. The weeds must be kept down, or they will steal away the food of the plants. They are most unscrupulous robbers, and must be treated without mercy. It has been settled by experience extending from the time when Adam cultivated the garden of Eden, down to this time, that we cannot raise a good crop of vegetables, and a large crop of weeds, upon the same spot, at the same time. If we have fine, thrifty vegetables, we have few and meagre weeds,—or, if we get a vigorous growth of weeds, we cannot have thrifty vegetables, too.

It is the wisest course to decide early in the season which we will have, and not waste our labor in attempting to have both. This is as unwise as to try to serve God and mammon at the same time.

The *cultivator* and the *hoe* must be busy in the corn field and potato field. You will need to go over these crops twice, at least, this month. If you can sprinkle a handful of ashes, or a little plaster, or air-slaked lime on each hill before hoeing, you will find it a paying operation; and if you will have a cask or two of lime ready, and sprinkle it freely over your potatoes, about the middle of July, early in the morning, when the

vines are wet with dew, or just after a shower, you will probably do an essential service to your crop, both as regards snails and slugs and the rot.

Let your hoeing be thoroughly done. Pick out the weeds carefully from the plants, and thin them where they are too thick. It is much easier to do this when the plants are small, and it is much less injurious to them to disturb their roots when small, than when they have reached a larger growth.

Soils that have been long cultivated, and are manured with manure from the stable, will necessarily be weedy, and no inconsiderable part of our farm labor consists in eradicating the weeds from our crops. This will always be so, and we must make our arrangements accordingly. The best means that we can suggest to save labor in this matter, is never to let the weeds go to seed in the field or garden.

In the eastern and southern parts of Massachusetts, work in the hay-field will commence about the close of this month. Mowing machines are now becoming quite common, and upon many large farms, will greatly facilitate the labor of haying. We hope it will not be a long time before Yankee ingenuity will provide a light, compact machine that can easily be worked by one horse, and will be furnished at a price within the means of every farmer in New England. This will reduce the labor of haying, as well as the time occupied by it, at least one-half, and thus leave much time for the other labors of the farm, which press so urgently at this season of the year. Such a machine would meet the wants of the small farmers of the east, and would put them upon a level with the farmers of the west. In their wide fields, where horses abound, and are cheaply kept, the heavy machines now in use are of inestimable value, and have already increased the amount of the grain crop beyond all calculation. Without their aid, it would be impossible for them to secure their grain before it would spoil in the field. Necessity is the mother of invention, and now that invention has become a profession, the farmer, like the manufacturer, has but to make his wants known, and brains are immediately set to work, to devise means of meeting them.

But enough of this. We have digressed widely from the point at which we started, and have not yet expressed the thought which was in our mind when we took pen in hand.

JUNE is the most beautiful month in the year. Its breath is fragrant with the sweet odors of the flowers. The clarion notes of the birds wake the echoes of the morning. The insect tribes, the birds and the animals all wear their brightest liveries. The vegetable world is clothed in its richest garb. The fields and the forests are robed in their brightest green. Every living thing is fair and fresh, and all is full of hope. Then let us, while the sun, and all the sweet influences of the heavens, and the energies of nature around us are working for us, and cheering our labors, not be deficient in efforts for ourselves. Let us rise with the lark, and with hearts full of gratitude and cheerful hope, second and guide with skilful hands, the energies which nature is putting forth for the sustenance and happiness of all her children.

Let us work in accordance with her laws, and avail ourselves of that assistance which she is ever ready to lend to all our wisely-directed efforts, and then when the bright verdure of summer shall be replaced by the russet of autumn, when the music of the feathered songsters is hushed, and the leaves have become brown and sere, we shall rejoice with thankful hearts over the labor of our hands.

RECIPE FOR MAKING SOAP.

The following recipe for making soap is by a lady who took the premiums for a very superior article at the late Fair of the Virginia State Agricultural Society. We think it will be found good:

Have ready hickory lye, strong enough to bear an egg, *showing the size of a dime* above the surface of the lye. To three pounds of clean fat, after being melted, add two gallons of the lye and a bit of lime the size of a walnut; boil it fast, and frequently. When it has boiled an hour stir in two gallons more of the lye; continue to stir it often, and always one way. After it has boiled for several hours, take out a spoonful and cool it on a plate; if it does not jelly, add a very little water; if this cause it to jelly, add water to that in the kettle,—stir very quickly while the water is poured in, till you perceive that it ropes on the stick or becomes heavy. When this is the case, you have what is called jelly soap, (or soft soap by some.) To make it hard, stir one quart of salt into the kettle, and let it boil ten minutes longer; set it by to cool. Next day cut the soap out of the kettle and clarify it by melting it over, adding water enough barely to cover it; let it just come to a boil, and set it away. When perfectly cool and firm, turn it out of the oven, scrape off the residuum that may adhere to the cake of soap, cut it in pieces and place it on the board to harden.

To make this soap fit for toilet purposes, it is only necessary to cut it into thin shavings, place it in a very nice tin pan, add a little water, scarcely enough to cover the shavings, set it on some embers and stir and beat it with a nice spoon till it becomes a smooth jelly; while in this state, if you wish to color it, dissolve *Chinese* vermillion in a little water, and stir it in till you get the desired hue; take it off the fire, and add oil of lavender, bergamot, sassefras, or any other essential oil, the scent of which you like; and while it is somewhat liquid, pour it into moulds.

For the New England Farmer.

PATENT OFFICE REPORT FOR 1856.

I have before me the Patent Office Report for 1856, on Agriculture. The table of contents promises a rich repast, but a careful examination shows the promise scarcely fulfilled. There are, however, several highly interesting and valuable articles, and in one respect, there is a decided improvement on the past. The plates are better executed than in any former number, showing a gratifying advance in this branch of art in our country.

The plate of Peabody's Haut Bois Strawberry is beautifully done, and would do credit to any horticultural magazine.

The plates accompanying Kermicolt's report upon the quadrupeds and birds of Illinois, are highly creditable, both to the author and the artist. The whole article by Kermicolt is very valuable. It is written in a clear, intelligible style, and exhibits great industry and research, and is an important contribution to the zoology of the United States. The articles upon drainage as a means of improving land, by Henry F. French, of New Hampshire, and upon the use of muck as a fertilizer, by Simon Brown, of Massachusetts, are plain, common-sense and instructive articles, and deserve to be carefully read and inwardly digested, by every New England farmer especially. The paper upon grafting and budding, by John I. Thomas, of the State of New York, is neat and sensible, and embraces the gist of the whole subject. His descriptions are clear and comprehensible, and his directions are in general correct, and may be followed with safety. The reports of the American Pomological Society embody a good deal of valuable information, and it is to be presumed that the varieties of fruit recommended in the reports from the several States will be found well adapted to the localities where they have been cultivated. The results in fruit-growing arrived at by careful and competent experimenters, are very valuable, inasmuch as they save, to those wishing to obtain good varieties of fruit, a great amount of time and labor. The article upon grape culture, by Dr. Warden, of Ohio, contains several useful suggestions. His remarks upon the preparation of the soil, drainage, &c., are worthy of careful perusal. The crowning article in the volume is that upon meteorology and its relations to agriculture, accredited to Professor Henry, of the Smithsonian Institute.

Some 131 pages, or about one-fourth part of the volume is prepared by D. J. Browne. Mr. Browne is certainly a man of great industry; but he obviously has a high opinion of himself and his own abilities,—probably higher than his readers will entertain. His articles are prepared upon the modern plan of lectures and magazine literature. He reads up for the occasion, and selects the most striking thoughts and facts from other authors, who have written upon the subjects which he discusses. But he often shows that he has not practical knowledge enough of the subject of which he treats, to enable him to distinguish between the true and the false—between the chaff and the wheat. To be a compiler of other men's thoughts for practical use, a man should understand the subject for himself, and be able to discriminate between that which is erroneous, and that which is true. Otherwise but little reliance can be placed upon his collections.

We have already a sufficient number of school books, and agricultural books manufactured to order, for the trade, in the same way. Another objection, too, may be urged against some of these articles with propriety. In such compositions, justice would seem to require that due credit should be given to the authors consulted. In some of these articles we have statements given as original that have been before the public for years, indicating either a large share of conceit in the writer, or a low estimate of the intelligence of his readers.

We have some curiosity to know whether Mr. B. is paid by the page for the matter which purports to be original, in addition to his salary for services in the office. If he is, this will account for the large space which his articles occupy. We certainly do not object to a reasonable amount of matter from his pen. Some of his articles are very readable. He writes in an easy fluent style, and if we could feel that he knows whereof he affirms, and could rely upon his judgment, we should be satisfied. We know nothing of him except what we infer from his style, and manner of gathering his facts, and the *ex cathedra* spirit apparent in most of his articles. It is obvious that he is not to be contradicted, and that we are expected to receive his opinions as law from which there is no appeal. The modesty of real knowledge is not as apparent as could be desired. A book got up at so much cost and printed at the expense of the nation, and which purports to represent the condition of agriculture in the United States, should consist of original and carefully digested matter, in all respects accurate and reliable. The appropriation by Congress is certainly adequate to command the pens of the most intelligent and competent agriculturists in the nation. Perhaps any suspicion of favoritism in the employment of writers, or of sectionalism in the expenditure of the funds subject to the control of the bureau of agriculture, is unjust, but we confess that a feeling of this sort has sometimes crept over us, when we have looked over the contents of the volumes from this department. Yours, &c., MIDDLESEX.

For the New England Farmer.

WARWICK AGRICULTURAL SOCIETY.

MR. EDITOR:—The town of Warwick, being situated in the extreme north-eastern part of the county, and, by its location, cut off from all interest and influence in the county society, it was thought advisable to form a town society, not in the spirit of opposition to the county society, but with the view of bringing home to the minds of all our farmers the various improvements which have been made in the science of agriculture. Accordingly, in the early part of the winter, a large and flourishing society, composed principally of farmers, was formed, a constitution adopted, and preparations made for holding discussions on some of the most interesting subjects of agriculture. And though it was no part of our design to make the learned display which is made by our "Conscript Fathers" at the State House, in their discussions upon the sub-

ject, yet we did expect to receive mutual benefit and instruction, and, thus far, we have not been disappointed. The subjects which have already been discussed are the following: *The best methods of making and saving domestic manures; the best time of cutting the various kinds of grass, and the best methods of curing them; the best style of plowing the different kinds of soil.* These discussions have been held once a fortnight. It is the intention of the society to have a regular town CATTLE SHOW sometime during the autumn. The following are the officers for the present year:—Rev. John Goldsbury, President; Edward Mayo, Vice President; Samuel W. Spooner, Secretary; Joseph W. Phillips, Treasurer; Elisha M. Davis, Clark Stearns, William R. Ball, Joseph W. Green, and Jotham Lincoln, Standing Committee. JOHN GOLDSBURY.

A MORNING IN AN OLD SWAMP.

At a period when so much interest is felt in the subject of Drainage, it is important that persons engaged in the operation should not only have access to the best works on the subject, and communication with intelligent men who have given the matter thought, investigation and practical attention, but they should be referred to works going on and also in a completed state, in order to determine, by the practical efforts of others, whether it is feasible and advisable for them to embark in a similar enterprise on their own estates. For cautious and well considered movements would save farmers, as well as men in other callings, from many disastrous experiments that not only exhaust their means, but fill them afterwards with prejudices that are not well founded, and that are exceedingly difficult to be removed.

It is with this view that we give an account of *a morning visit to an old swamp*—to state where an extensive operation in drainage is now being carried on, and to suggest to those contemplating similar operations, that they may find much in this work towards settling the question whether they will embark in such an enterprise or not.

It was a windy morning in early March when Mr. J. H. SHEDD, of the firm of SHEDD & EDSON, Civil Engineers and Surveyors, Boston, took us to the pleasant town of Milton, seven miles from Boston, to look at lands now going through the process of being underdrained, and belonging to Messrs. *John A. Cunningham* and *John M. Forbes*, both Boston merchants, but who have an eye for the useful and beautiful in country life.

The tract on which the drains are located is considerably elevated above that immediately north of it, and in this direction, and by means of this elevation, the necessary fall for the main drain is obtained. The east and west sides are flanked by hills, and terminating in somewhat extensive plains or table land.

The surface and the soil through which the drains pass are quite variable; sometimes presenting a level surface, with a rich black soil, at others undulating, and presenting below, stones, rocks, gravel, clays, in one instance a quick-sand about as ready to find its level as water itself, and below most of these a hard-pan subsoil.

This interval, or space between the hills, was formerly covered during a greater part of the year with stagnant water, supplied from the hills, acting as reservoirs, on either side. But being well wooded with a rich growth of young oaks, maples and elms, the project was conceived of converting it into a park or pleasure ground, by the permanent removal of the water, and reducing the soil to a state of dryness and solidity; and by the construction of avenues, and the introduction of such other features as might be desirable.

The *trench for the main drain* is 1450 feet in length, about 4¼ feet in depth, and 3½ feet wide at top, by 3 feet at the bottom. The least fall in any portion of the drain is three-tenths of a foot in a hundred feet.

The *lateral drains* on the easterly side of the main are ten in number, with an aggregate length of 1900 feet, their average length being 190 feet. These drains were laid out at distances 60 feet apart, are on the line of half-rise with the steepest ascent, and their ends run well into the hills.

The tract to be drained has very properly been made into two divisions, as the condition of the surface naturally requires two main drains to lead off the water from the laterals. It ought to be stated, too, that there was a small, natural, sinuous water-course flowing through both divisions. The length of the mains and the laterals passing into the brook are as follows:

1st division, main drain	1450 feet.
1st division, laterals	1900 "
2nd division, main drain	550 "
2nd division, laterals	1050 "
Brook	1550 "
Laterals into brook	1700 "
Total	8200 feet.

The sinuous water course has been excavated and its stream so much increased in volume as to become dignified into a rapid and pleasant brook, adding greatly to the appearance of what will now rapidly assume the appearance of a clear and wholesome park!

The tract of land now drained has long been abandoned to stagnant water, lily pads, frogs, lizards and water brush, and was a fair sample of those *dismal swamps* which abound in nearly every portion of New England. Now the surface presented is extremely uneven, and abounds with a mass of decaying vegetation, black, slimy and disagreeable, where hassocks, rotten roots, and masses of leaves and brakes may become active agents in fertilizing and rearing more useful and agreeable plants.

For the New England Farmer.

THINGS BY THE WAYSIDE---No. 5.

"TREES BESIDE THE WALL."

This is a good suggestion of yours, Mr. Editor, and deserves an extensive investigation. That trees having roots under stone walls, or a large rock, thrive better than those out in an open field where the scythe passes close to the soil over the roots annually, is quite evident to the careful observer. The earth under a large stone, a collection of small stones or a stone wall, is always light and mellow, easily penetrated by the surface roots near the top of the ground, seeking light, heat and moisture, and sustains a remarkably *uniform* degree of temperature both summer and winter. Hundreds of fruit trees are annually killed by drought in summer, and frost in winter. Neither heat or cold will destroy fruit trees in a healthy condition if the *roots* are properly protected. Three years ago last summer I lost a beautiful Seckle pear tree by drought. Since then I have carefully guarded against both drought and frost by mulching, the practice usually adopted by nursery-men and fruit-growers. I have no doubt but a body of stones covering the whole surface under the tree would be much better, especially old trees. I have noticed inquiries in your paper concerning the cracking of fruit trees in winter. This probably is occasioned by the pressure of sap to the top of the tree, by freezing of the roots. So far as my observations have extended, thrifty and rapid growing trees are the first to suffer in this way.

CORN AND POTATOES—PROFITS.

Indian corn is recommended by a large majority of writers in New England as our most profitable field crop. This runs counter to my experience, and I beg to differ. Last summer I planted three-fourths of an acre of light sandy loam to corn, and one-fourth to potatoes in the same field. Fourteen loads of unfermented manure per acre was the amount used, the poorest portion being reserved for the potatoes. Fifteen bushels of shelled corn and forty-five bushels of potatoes was the crop raised. The corn was worth one dollar, and the potatoes fifty cents per bushel. By planting the three-fourths of an acre in corn to potatoes, I should have realized four times as much in value at less expense. This agrees with my experience and observations for the last three years, and I think will satisfy any person who will look at the price of potatoes for several years past at New York and Boston quotations. I believe light sandy soils are the best for potatoes in these times of rot. High manuring, for the last few years, has proved quite injurious.

CARROTS AND RUTA BAGAS.

A strong desire to possess information upon this point of agricultural intelligence, has led me to inquire into the experiments and results of many of my neighbors, who are engaged in this and many other experiments of a kindred nature; and I find a large majority of those I have consulted to be strongly in favor of raising ruta bagas in preference to carrots, for three leading reasons.

1. A much larger crop can be grown upon the same breadth of land, manure, quality of soil and every thing else being equal.

2. They can be grown at much less expense, as they can be grown in drills, or sown broadcast among corn; and I find it very convenient when sown among corn to sow the seed upon the manure heap before spreading or laying out into hills.

3. Nearly all kinds of stock relish them much better than they do carrots, they sell more readily in market as a garden sauce, and command a higher price.

SEASONING WOOD

for home consumption or for the market is a very important branch of business among farmers at this time, and any information upon this subject seems to me to be of importance. Wood prepared for the stove or open fire while green, corded up in the open air, say two or three months, then securely packed up under cover, is much more valuable than when cured in the condition of four feet, or cord wood. Many kinds of wood, birch in particular, spalt badly unless prepared for the fire while green. To avoid this, when cording up wood for the market or home consumption, pile it with the *bark up*.

L. L. PIERCE.

East Jaffrey, N. H., March, 1858.

THINNING OUT VEGETABLES.

It was Cobbitt, we think, that remarked, when speaking of the ill effect of thick planting, that one cucumber plant in a hill would bear more fruit than two, two more than four, and so on, and if there were fifty plants in a hill, the whole of them put together bear no cucumbers at all! The truth is, there is a much greater loss in allowing vegetables to stand thickly together than most are at all aware of. To insure a crop, plenty of seed is sown, with the intention of thinning at the proper time; but when thinning day arrives is requires rather more nerve to commit what appears to be the merciless havoc of tearing out nine-tenths of the beautifully growing young plants, than most people possess. A crop of beets has just commenced forming handsome bulbs, precisely one inch asunder in the row; certainly something of the surgeon's temper is needed to lay nine-tenths of these withering in the sun; cucumbers are just beginning to throw out their yellow blossoms, and it seems to some a hard matter to tear out three-fourths of the dozen now growing in the hill. It must, however, be done—all the surplus plants in a bed of beets or turnips, or a hill of cucumbers, squashes or melons are to be regarded as so many positive, downright *weeds*, obstructing the growth of the rest, and yielding but little or nothing themselves. If our crops are to be crowded and stunted, we would quite as willingly have it done with pig-weeds and fox-tail, as to have them smothered and the soil exhausted by seeds of their own species.

Many years ago, when the cultivation of the rutabaga was first introduced, we could invariably distinguish the crops of the novice by the thickly-growing, half-developed bulbs. "O! but they had thinned them to a very great extent—they had cut out three-fourths, and reduced them from one inch to four inches in distance," whereas none should ever stand nearer than a foot to each

other, if the soil possesses anything like a fair degree of fertility; but this looked like indiscriminate slaughter, and could not be thought of for a moment. The finest specimens of garden products, which we see exhibited at horticultural shows, are those which have been well thinned and allowed every opportunity to develop themselves freely; and the same is true of ornamental plants, where a full, rich and luxuriant growth and bloom are obtained through the adoption of the same principle.—*Country Gentleman.*

THE INTERIOR OF NORTH AMERICA.

Prof. Henry, of the Smithsonian Institution, has collected facts representing the interior of the United States, which will command the attention of scientific men and statesmen. The induction from these facts is, that the entire region of the United States west of the 98th degree west longitude, (say the western boundary of Minnesota,) with the exception of a small portion of Western Texas and the narrow border along the Pacific, (including California,) *is a sterile waste of comparatively little value*, and which can never be available to the agriculturist. The importance of this statement will be more fully comprehended when it is considered that the line of Prof. Henry, which extends southward from Lake Winnipeg to the Mexican Gulf, will divide the surface of the United States into two nearly equal parts.

The intense heat and extreme dryness of this region, which will make the Great American Plains a barren waste forever, is caused to a large extent, according to Prof. Henry's theory, by the fact that the returning Trade Winds, sweeping over the elevated masses of the Rocky Mountains, are deprived of their moisture; in other words, the heated air which ascends at the equator, saturated with moisture it has extracted in its passage over the ocean, after depositing a portion of its vapor in the tropics at the rainy seasons, is further dessicated by the ridges and mountains which it meets, the vapor being condensed on the windward side by the cold due to the increased vertical height, and it finally passes over and strikes the plains as dry as a sponge which has been thoroughly squeezed. Without moisture there can be no fertility, no agriculture; and a great portion of this wilderness, according to Prof. Henry, is as irredeemably barren, for the purposes of agriculture, as the deserts of Africa. If this theory be true, it will greatly modify the opinions which have been entertained by politicians and statesmen of the future destiny of the "Great West."

SOAP SUDS FOR CURRANT BUSHES.—A correspondent of the *Indiana Farmer* says: "I have found the cultivation of currants to be very profitable. By care and attention I greatly increased the size of the bushes and the quality of the fruit. My bushes are now about six or eight feet in height, and are remarkably thrifty. The cause of this large growth I attribute, in a great measure, to the fact that I have been in the habit of pouring soap-suds and chamber-ley around their roots during the summer season. I am satisfied, from my own experience and that of some of my neighbors, that the treatment will produce a most astonishing effect upon the growth and product of the bushes, and would advise others to give it a trial."

For the New England Farmer.

TALES OF A TRAVELLER.

Somebody who signs "Far East" in the last weekly *Farmer*, and whose knowledge seems to exceed his faith, seems disturbed at my seeing white pines and hemlocks in the neighborhood of Baden-Baden, and thinks the discovery "will create quite an uproar amongst the botanists." He says truly that the trees in question "are held to be natives of the new world only." Indian corn and tobacco are held to be natives of the new world only, but fields of them are growing all along in Germany. I am myself a native of the new world, and yet there are many who would testify that they saw me in Europe last summer.

But as to the white pines near Baden-Baden. On the 3d day of August last I walked out with three friends from Canada, up a short, steep hill, close by that city of fashion and folly. I was struck at finding myself among white pine trees, which extended over many acres, covering the steep side hill so far that I could not see their termination. They looked thrifty, and as if they might have had forty or fifty years' growth, and the ground beneath them was covered with their leaves. I was as much surprised at the sight as our "Far East" friend is at the statement, and while my companions reposed on the grass, I wandered off to find a branch low enough to examine, and finally returned with a handful of twigs, and explained to them my botanical notions. They were white pines, as we all knew, though we were as much surprised at meeting them as they were at meeting us, so far from home. The hemlocks I saw at the "old castle," six miles, I think, from the watering-place. There is a heavy forest close about the ruins, and large trees growing up inside the walls, indicating the great antiquity of the structure. I took one of my friends back a long way to convince him that there were large maples growing there. The woods look as wild as a New Hampshire mountain, and we spoke of the remarkable variety of forest trees, as we looked down upon them from the towering old walls. As to how our native trees came there, history is by no means silent. Loudon, in his Arboretum, vol. 1, p. 147, says:

"The margraves of Baden have, from the earliest ages, been much attached to planting and gardening. The worthy old margrave Charles, who died about 1805, and one of his sons yet alive, may be reckoned amongst the most zealous promoters of the planting of foreign trees and shrubs, in proof of which we need only refer to the parks at Carlsruhe, Schwetzingen, Mannheim and *Baden-Baden*."

The same author says the planting of the castle garden at Heidelberg was begun in 1615, and "at Haroke, near Helmstadt, there is a very interesting garden laid out in different scenes, which are called Canada, Virginia, &c., from the native countries of the trees planted in them."

It need not surprise us that our forest trees of full growth are found all over Europe. The white pine (*pinus strobus,*) was introduced into Kent, in England, so early that the trees "began to bear cones with perfect seeds," says Loudon, "about 1720." Perhaps my expression was not precisely accurate when I said that the white pine is found near Baden "in its natural growth." I meant that it grew as it naturally grows, not that it was a tree that was originally found there. I presume the pines I had in mind were grown from the seed artificially planted, and that the present forest about the old castle sprang up from the seeds and sprouts of those planted there centuries ago. At all events I defy Nature herself to make a more "natural growth" than may be seen there now.

I hope no Down Easter will hold up to view the spelling of some of the proper names in my letter from Lyons in the April number. It gave me a profitable admonition to write plainer in future, especially when dealing in the names of French and German places. H. F. FRENCH.

April 3, 1858.

For the New England Farmer.

CULTURE OF MAIZE OR INDIAN CORN.

It is refreshing, in these days of visionary speculation, to find such salutary instructions as have lately appeared on this subject in that truly sensible journal, the *Country Gentleman.* While one is hunting the arid sands of Africa for *Imphee,* and another is importing his *Sorghum* (for sugar) from China—the substantial farmer from the granite hills of New Hampshire tells how we may prosper best by cultivating our own *Indian Corn.* This plant we know, and have known it ever since our sires first rested on the sands of Plymouth, where it is still cultivated as successfully as anywhere we know. It is easy to demonstrate that a *net profit of fifty dollars an acre* can be realized annually by the growing of this crop. Any farmer possessing one hundred acres, can find the means of cultivating *ten acres* of corn, and hence an income of $500. The remainder of his land will meet other expenses of the family and farm; and let this course of industry be followed for *ten years,* he will have the means of paying for his land, and settling down truly independent. ***

April, 1858.

WHAT AN INDUSTRIOUS MAN CAN DO.—What an industrious man can do in a single year as a farmer on our soil, is sufficiently explained by what Mr. S. P. Scofield, of the town of Russ, in this county, has done since last March. He commenced by splitting rails enough to make three-fourths of a mile of fence, all of which fence was in due time made. He gathered last harvest—295 bushels of wheat; 150 bushels of corn; 140 bushels of oats; 90 bushels of buckwheat; 85 bushels of potatoes; 50 bushels of turnips. Mrs. Scofield, in the meantime, made 250 pounds of butter from the milk of four cows, from which we infer that she is not herself afraid of work. Mr. Scofield has labored the whole season under the disadvantage of having no team of his own. This deficiency he supplied by "changing work" with a neighbor—he himself working one day for the use of the team another day.—*Galena Advertiser.*

EXTRACTS AND REPLIES.

MOWING MACHINES.

MR. EDITOR:—I have heard so much said about this class of implements, that I sought the abstract of returns from the several societies, to learn which was best to be purchased. But to my astonishment, I found there only *three* spoken of—and these in a manner that I could not decide which was to be preferred. Allen's, Manny's and Ketchum's are the machines mentioned. All of these appear to have done good work—but each and all of them are open to exceptions. Is it not time that our farmers should be informed of an implement unexceptionable in its character? We do not expect this information from the makers and venders themselves, because they have too much interest in their own wares *not to puff them.* But we do expect it from those who are clothed with the authority of the State,—and we think it is their duty to be fully advised in these matters, and to lose no time in giving reliable information to their constituents. *

April, 1858.

REMARKS.—We think our correspondent, *, is asking too much; there is no mowing machine in existence, probably, which is "unexceptionable in its character"—that is, so perfect that no fault can reasonably be found in it. Is it not quite likely that "those who are clothed with the authority of the State," may entertain different views of the merits of the several machines, as well as others?

We can see no other way than for farmers to test them for themselves, and then compare the opinions made up from such tests. There were several machines used in this State last year which worked well: Manny's, Ketchum's and Allen's were in general use, and we have great confidence that the Heath Machine, to which was awarded the thousand dollar premium, is to take a high stand among them all. Some errors in the construction have been corrected, and it is now ready for the public, manufactured with great care, and preserving the plan of the original machine.

—

GUTTA PERCHA PIPE.

Can you or any of your correspondents inform me where gutta percha pipe can be obtained, and at what price per foot for ⅜ or ½ inch hole, and if

it is healthy to use the water passing through it? Also, if it is cheaper than lead pipe, and whether it must be laid in logs or without? Will it bear the pressure that ten ounces lead pipe per foot will? W. J. SMITH.

Ludlow, Vt., 1858.

REMARKS.—Gutta percha pipe of any size and in any quantity may be obtained of Charles Stodder, 75 Kilby Street, Boston. It costs about the same as lead pipe; does not affect the water, and need not be laid in logs. Cannot tell you about the pressure it will bear.

—

SHAKER GRAFTING CEMENT.

I have forwarded you a few pounds of grafting cement, and wish you to give it a trial.

It is composed of such ingredients as make it the best article for grafting in its various forms now in use. It is perfectly pliable at a proper temperature of the weather, and may be spread upon the cut surface of the grafted stalk, with the most perfect ease, with the fingers, by touching them to a little tallow, which all grafters usually have with them. The greatest heat of the sun will not cause it to run off the stalk, neither will it crack or pull of, as most other cements do the second year.

I have used this cement more than twenty years, and have yet seen nothing of the kind that will equal it. Others who have used it, acknowledge it to be the best article in their knowledge. I call it Shaker Grafting Cement.

PETER A. FOSTER.

Shaker Village, Merrimac Co., N. H.

REMARKS.—Thank you, Sir. We shall try your "Shaker Grafting Cement" in a few days, and if it proves good, we will tell the "world's people" so.

—

LAMP OIL.

To Remove Lamp Oil from Cotton and Woolen Goods.—Rub in thoroughly with the hand some clean, fresh lard, let it remain for two or three hours, then apply soft soap, and wash in warm water. This can be depended on.

MILCH COWS.

Can you inform me if a book entitled, I think, "Guenon's Cow Book," is in print now, and where it can be obtained? The book contained, what was claimed to be, a discovery made by Mr. Guenon, a Frenchman, of a never-failing means of ascertaining the milking properties of cows by the direction of the growth of the hair upon the rump of the animal. It was transcribed entire to the pages of the *Monthly Journal of Agriculture*, published by Greeley & McElrath, New York. B. F. M.

Lowell, Mass., April 12th, 1858.

REMARKS.—The book you inquire for may be found at this office, as well as all the best works on agricultural and horticultural subjects. The pamphlet edition of Guenon costs 37½ cents.

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TURKEYS—HOW TO RAISE?

Some few months since I noticed in your paper an article stating that sixty-six turkeys had been raised from two or three hen turkeys. I would like to inquire in regard to the feeding and other care bestowed, by which such a fortunate result was obtained. In this vicinity many of our farmers find it extremely difficult to raise even a small number of this valuable fowl.

Gloucester, April. 1858. G. H. PROCTER.

—

CURE FOR CHILBLAINS.

Take a saucer full of beef brine, and if it be cold weather, warm it a little; then take a flannel cloth and dip it into the brine, rub it on and dry it in, and a few applications will entirely remove the chilblains. L. F. D.

A SICK HEIFER.

I have a two-year old heifer which has been troubled since a few months old with a constant running at the eyes. Will you or some of your numerous correspondents please inform me the cause and remedy, and oblige,

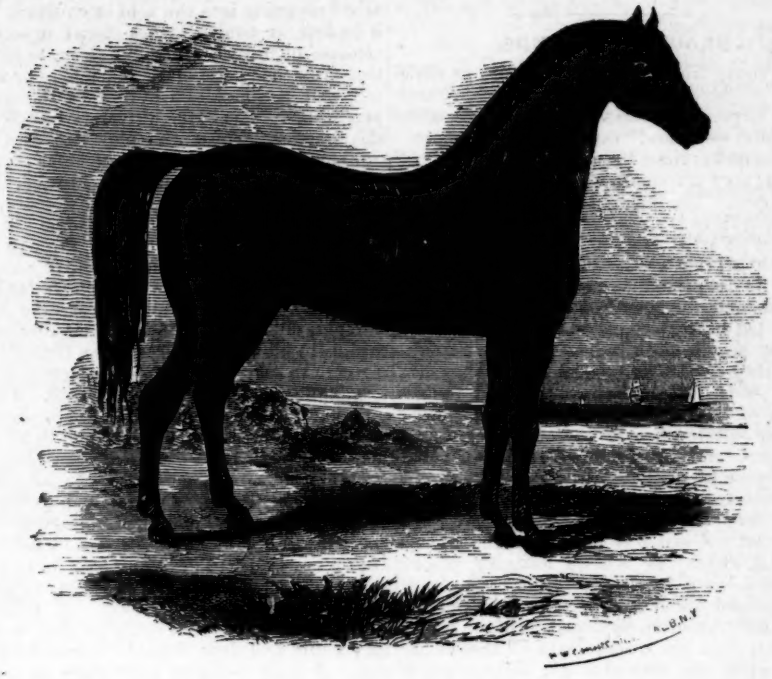
Freetown, April, 1858. A SUBSCRIBER.

WHEAT STRAW.

Last season we were presented with a specimen of wheat straw for examination, which had grown on a piece of land formerly very productive in this species of grain, but which had failed to produce it for some years, except in very diminished quantities. On examining the texture of the straw, it was found to be lax, and very "flabby," something like a towstring, without solidity or strength. The cause of this was at once apparent. The soluble silex of the soil necessary to the production of a firm, glossy straw, had been exhausted by the previous crops, and the present one had failed from want of a supply. No wheat can be produced where this mineral ingredient does not exist. It is still more difficult to grow barley where there is not considerable sand or gravel.

Land for wheat should not be made very rich; if it is, there will be a great growth of long, coarse straw, which will be quite likely to fall before the berry is formed, and the crop fails. There is little danger of this in the Indian corn crop—it will bear almost any amount of manure. Where it is intended to lay land to grass with wheat, it is best to manure rather lightly for the wheat, if the land is in tolerably good condition, and add the fine manure to the young grass immediately after the wheat is harvested.

THE BORER.—Mr. TRAVIS, of Natick, states that a mixture of one part salt, two parts fresh slaked lime, and two parts soft soap, applied to the lower limbs and the body of the apple tree, after first scraping the tree gently, will prevent the borer from depositing its eggs in the bark. It should be applied about the middle of April. He states that the success of this remedy is complete.



A FINE MORGAN,—TOM HOWARD.

Every body loves a good horse,—and when holding the ribbons behind one possessing the symmetry and spirit of the one presented in our engraving, it inspires us with a feeling kindred to that which the eagle seems to possess, of going where we will without restraint or fear of fatigue.

For beauty of form, and power of endurance, added to gentleness and graceful activity, probably no breed of horses in the world surpasses the Morgans. When well treated, they are kind in every harness, and in the hands of those who are willing to take some pains with them, will soon learn so much of the road or the farm, as to show a surprising degree of intelligence. The Morgans are seldom vicious, are strong, compact, sure-footed, and weigh about ten hundred, varying both below and above that size occasionally.

A friend whose knowledge of horses is scarcely surpassed by that of any person in New England, told us the other day that his father long owned a Morgan horse that he frequently drove from Brattleboro', Vt., to Hartford, Conn., 80 miles, in one day, attached to a chaise containing two persons, and that he did this service handsomely after he was 24 years old!

As roadsters, coach or stage horses, they can scarcely be equalled, while they are rarely excelled in fleetness by any other breed on the turf.

R. B. Westover, Esq., of Castleton, Vt., the owner, says that Tom Howard, the subject of our cut, was sired by the celebrated Black Hawk, formerly owned by David Hill, of Bridport, Addison county, Vt., (now dead,) widely known as the sire of Ethan Allen, Lancet, Black Hawk Maid, Bill of Saratoga, Black Ralph, Lady Litchfield, and other famous trotting horses, and as being the parental head of this most distinguished family of Morgans. Tom Howard's dam was the noted Henry Mare, sired by Barney's Henry G. D. Queen Bess, sired by Sherman Morgan, Barney's Henry by Allen's Young Signal, he by old Imported Signal; his clean, lean head, his broad forehead, bold, full and prominent eyes, delicate ears and flat, clean limbs, give unmistakable evidence of a large infusion of superior blood.

Tom Howard is a beautiful raven-black, not a white hair on him, stands 16¼ hands high, weighs 1250 pounds, and will be 7 years old the 20th of June. For style, symmetry and action, he cannot be surpassed; is a splendid stepper; his colts

are justly celebrated for speed, bottom and good temper, and are eagerly sought after, commanding prices from $200 to $2,500, according to age.

BEAUTIFUL HANDS.

As a young friend was standing with us noticing the pedestrians on the sidewalk, a very stylish and elegant girl passed us. "What beautiful hands Miss —— has!" exclaimed our friend.

"What makes them beautiful?"

"Why, they are small, white, soft and exquisitely shaped. The fingers taper down most delicately, and there is a roseate blush on the finger-nails that no artist could imitate."

"Is that all that constitutes the beauty of the hand? Is not something more to be included in your catalogue of beauty which you have not enumerated to make the hand desirable?"

"What more would you have?"

"Are they *charitable* hands? Have they ever fed the poor? Have they ever carried the necessities of life to the widow and the orphan? Has their soft touch ever soothed the irritation of sickness, and calmed the agonies of pain? Do the poor bless those rosy-tipped fingers as their wants are supplied by them?

"Are they *useful* hands? Have they been taught that the world is not a playground, or a theatre of display, or a mere lounging place? Do those delicate hands ever labor? Are they ever employed about the domestic duties of life—the homely, ordinary employments of the household? Or does the owner leave all that to her mother, while she nourishes her delicate hands in idleness?

"Are they *modest* hands? Will they perform their charities or their duties without vanity? Or do they pander to the pride of their owner by their delicacy and beauty? Does she think more of their display than of the improvement of her intellect and character? Had she rather be called 'the girl with the beautiful hands' than to receive any other praise for excellency of conduct or character?

"Are they *humble* hands? Will their owner extend them to grasp the hard hand of that old schoolfellow, who sat at the same desk with her and on the same recitation bench, but who now must earn her living by her labor? Or will they remain concealed, in their exclusiveness, in her aristocratic muff, as she sweeps by her former companion?

"Are they *religious* hands? Are they ever clasped in prayer or elevated in praise? Does she remember the God who has made her to differ from so many of her sex, and devote her mind, her heart, her *hands*, to his service? Does she try to imitate her Saviour by going about doing good? Or are her hands too delicate, too beautiful to be employed in good works?

"These are qualities that make the hand a beautiful one, in my estimation. There is an amaranthine loveliness in such hands superior to the tapering slenderness of the fingers or the roseate hue of the nails."

"Poh, poh, you treat this subject too seriously. Besides, you forget the most valuable particular to a young man like me. *Will she cheerfully give me that hand to keep?*"—*Hartford Courant.*

For the New England Farmer.

HOW DEEP SHALL WE PLOW?

Who can answer this question? the first that arises on going into the field to cultivate. Shall it be four or twelve inches deep? or any intermediate quantity? It would seem, as all plants that grow make use of twelve inches or more of soil, that it should be stirred to this depth, if practicable. The best cultivators I know, adopt this practice. Those who plow less depth than this have more regard to ease of labor than profits of crops. I am quite well assured, that no one can grow a fair crop of Indian corn, wheat or barley, on shallow culture. Some are afraid to start the hard pan or subsoil, through fear of turning up a barren or unproductive substance. This is because they do not understand their business. The best way of guarding against drought, the chief bugbear of New England culture, is to plow deep and fertilize liberally; taking care to save manure from evaporation, by intermingling or covering it with soil. I am not unmindful that no general rule can be prescribed that will be suited to all soils and to all crops; but still I think there are some principles, which are applicable, to some extent, to all crops.—Among these, I believe, complete pulverizations of the soil and complete intermingling of the manure will be found conspicuous. I have never known any crops to be prejudiced by this being done; but have often known them to suffer for the want of these operations. If cultivators would be vigilant in thus applying their energies, they would find their reward, in seasons of harvest. I have personal knowledge of a farm, where the soil was considered very gravelly and unproductive. On this farm, within ten years last past, deep plowing, say from nine to twelve inches, has generally been introduced. The consequence has been, crops have been grown equal to those on the best farms around. Whether deep plowing was the cause or not, I will leave for others to say.

April, 1858.

MR. MORRILL'S LAND BILL.—The Washington correspondent of the Philadelphia *Enquirer* says of the new bill giving lands to the States for agricultural and mechanical purposes:

"The entire amount thus given to the States exceeds six millions of acres. Instead of being apportioned according to the various areas in acres or square miles, it is distributed on the basis of Congressional representation, allowing 20,000 acres for each Senator and Representative in Congress. The result is that the largest States sometimes gets the smallest quantity of land. The distribution will be as follows: New York, 700,000 acres; Pennsylvania, 540,000; Ohio, 460,000; Virginia, 300,000; Massachusetts and Indiana, 260,000 each; Kentucky and Tennessee, 240,000 each; Illinois, 220,000; North Carolina and Georgia 200,000 each; New Jersey and Mississippi, 140,000 each; Connecticut, Louisiana and Michigan, 120,000 each; New Hampshire, Vermont and Wisconsin, 100,000 each; Rhode Island, Arkansas, Texas, Iowa and California, 80,000 each; and Delaware and Florida, 60,000 each."

For the New England Farmer.

NEW ENGLAND AND THE WEST.

How the New England farmer can successfully compete with the Western planter, is a serious question. Upon its truthful answer depend the enterprise and thrift of many New England men. Let it once be settled, that the prairie farmer has the pecuniary advantage in the agricultural yoke, and the right arm of New England industry is paralized. On the contrary, let it be proved by facts, that economy, industry and intelligence are all that is requisite to make the Eastern States the equal of other sections of the country, and New England will become what she of right ought to be, the garden of America, the Eden of the world. Her rough and sterile soil will become polished and fruitful. Her unsightly rocks will either sink into her bosom, or rise in palaces of marble. Her frozen lakes, so useless at home, will equalize both the temperature and the commerce of other zones. "Her hills will be covered with flocks and her valleys clothed with corn." Success is ever the key of enterprise. I propose to suggest some of the ways of obtaining this success.

1. The New England farmer should carefully save his fertilizers. Circumstances alter cases, is an old adage. In New England, land is comparatively scarce and sterile. At the West, it is abundant and fruitful. Here, crops are only raised with care and toil. There, with ease and negligence. Here, manure is bought with money. There, they pay something to get rid of it. If it shall ever prove true, that the more manure, the greater the crop, then it will be easy to show that the more manure, the more successful the farmer. Indeed, experience proves, that without manures, the New England farmer can do nothing. They constitute not only the body, but the *soul*, of our farming. Therefore I repeat it, *carefully save all your fertilizers.*

2. Be ready to adopt the improved methods of cultivation. We hear much said about high cultivation and improved implements, but the progressive farmer, should know their meaning by sight and feeling as well as sound. Faith without works is as contemptible in agriculture as in religion. He that makes two spires of grass grow where one grew before, is accounted a public benefactor. No man of common intelligence will say that the capabilities of our soil have been fully tested. Neither is it literally true, that land is scarce in New England. Not one-third of her ground has been cultivated or improved. If all the land in the six Eastern States was equally distributed to its inhabitants, every man, woman and child would possess nearly forty acres. In the good time coming, when every acre shall sustain its man, a vast amount of produce will be sold to somebody. Our position gives us the advantage of our Western brethren. We are nearer the sea-board and the great marts of trade. It will cost us less for the transportation of our produce. This *transportation* will always be a cash article. This *cash* must necessarily be deducted from the profits of agriculture. This *profit*, saved by the New England farmer, will purchase many of the luxuries of life, that the Western farmer cannot afford to enjoy. Rye, corn, potatoes, butter, eggs, beef, pork, veal and poultry, things which almost every farm can spare, are here usually cashed at sight.

There are some men that affect to pity the eastern farmer, because he has to contend with a rugged soil, in a vigorous climate. Such men seem to forget the old proverb, "that nothing valuable is obtained without labor." It is glory enough to live in New England, even if we work hard for it. Besides, no man can expect success in any business without industry. "Employment makes a people happy," said the immortal Webster. To attain the highest success the farmer must attend closely to his business. He must use caution on the one hand, and energy on the other. He must never put off till to-morrow, that which should be done to-day. He must be prophet enough to anticipate, at least, one day's work ahead. In short he must be *wide awake.*

3. Be intelligent. The time was, when the strongest man was the best farmer. To knock down a bullock with the fist was a crowning qualification. But times are changed. Brains are fast taking the place of brute force, and mind is displacing matter, otherwise the ox would be more skilful than the man. To sustain the well-earned reputation of our ancestors, we must increase our intelligence. New England is foremost in all things else—let her be in this. We must read more, attend farmer's clubs, exchange opinions, compare notes, learn different practices, ask counsel, take advice, draw conclusions, but finally trust in our own judgment. There are some men who condemn book farming indiscriminately. They try a single theory, and if it does not work well, they reject all other theories. With a serious air, they tell us, that "*practice* alone brings success." Such reasoning answers for old men better than for young America. The fault is not so much in the theory, as in the judgment. All the theories in the world will not hurt men who use judgment. The mind must work. Intelligence is the price of the highest agricultural success. JAMES NEWTON BAGG.

West Springfield, 1858.

For the New England Farmer.

ON KILLING ROBINS.

MR. EDITOR:—We have a good many cherry trees on our place; among them is one whose fruit ripens very early. For the last two years we have had hardly a cherry from this tree, on account of the ravages made by the robins. As soon as one began to ripen it was sure to be pecked. This work went on, until every one worth pecking was pecked; doubtless, greatly to the delight of the birds, but very little to us. So with the later kinds; the largest and fairest of the fruit was plucked or mangled so as to be unfit for use.

I think it will be justifiable, on the ground of self-defence, to use a little shot among our troublesome visitors this year.

It is doubtless true, as Mr. Flagg says, that the robins destroy vast numbers of earth-worms before the fruits are ripe enough to furnish them food; but if it appears that they are of less benefit in this respect, than they are of injury in destroying our fruit, shall we not be justified in carrying the war into the enemy's country? By vir-

tue of the dominion given him over birds, beasts and fishes, man may use these creatures in the way that will benefit him most. It is no more wrong to kill an ox for food, than it is to compel him to draw a burden. Every one will allow there is no wrong in killing a turkey or a chicken for food; and what wrong is there in killing a dozen robins for food? None, because the end in view is a useful one. So when these, or any other birds, or animals of any other kind, become so numerous as to be of positive injury to us, we do no wrong in killing them, because by so doing we find ourselves better off than we should be, if we suffered them to live—in other words, because our object is a useful one.

It is pleasing to see the sprightly redbreast hopping along the ground, or skipping among the branches, and it is still more pleasing to hear him at daybreak pouring forth his rich notes with so much animation, but if we are to have these gratifications only at the expense of our cherries, peaches and strawberries, it may be well to inquire whether we are not giving more than we are receiving? J. B. R.

Concord, April 16th, 1858.

HOW DROUGHT BENEFITS THE SOIL.

That a season of extreme drought—so often occurring and so injurious to our summer crops—should still prove beneficial to the soil, seems strange, but chemical science shows that droughts are one of the material causes to restore the constituents of crops and renovate cultivated soil.

Mineral matter is taken from the soil by the crops grown upon it, and also carried away by the surface water flowing into streams, and thence carried to the sea. These two causes, always in operation, unless counteracted by other influences, would in time render the earth a barren waste. The diminution which arises from the first cause is in part restored by manures, but not in all cases, and Providence has provided a way of its own to supply lost mineral constituents needed in the growth of plants. At intervals, droughts occur to bring up from the deep parts of the earth food for the use of plants when the rains shall again fall.

The manner in which droughts exercise their beneficial influence is as follows: during dry weather a continual evaporation of water takes place from the surface of the earth, which is not supplied by any from the clouds. The evaporation from the surface creates a vacuum (as far as the water is concerned) which is at once filled by water rising up from the subsoil; the water from the subsoil is replaced from the next below, and in this manner the circulation of water in the earth is the reverse of that which takes place in wet weather. This progress to the surface of the water in the earth manifests itself strikingly in the drying up of springs and wells, and streams which are supported by springs.

It is not, however, only the water which is brought to the surface of the earth, but also all the water holds in solution. These substances are salts of lime and magnesia, of potash and soda, and indeed whatever the soil or top strata of the earth may contain. The water on reaching the surface, is evaporated, and leaves behind in the soil its mineral salts, the chief of which are lime, magnesia, phosphate of lime, sulphate of lime, carbonate and silicate of potash and soda, and also common salt—all indispensable to the growth of the vegetable products of the farm. Pure rain water, as it falls, will dissolve but a very small portion of some of these substances, but when it sinks into the earth it then becomes strongly imbued with carbonic acid from the decomposition of vegetable matter in the soil, and thus acquires the property of readily dissolving minerals, on which it before could have very little influence.

Several experiments tried by Professor Higgins go to show this action of drought in bringing matters to the surface of the soil. In one case he placed a solution of chloride of basium in the bottom of a glass cylinder, and then filled it with dry soil. After long exposure to the rays of the sun, the surface of the soil was tested with sulphuric acid, and gave a copious precipitate of sulphate of baryta. Chloride of lime, sulphate of soda and carbonate of potash were experimented upon in like manner; and upon the application of proper tests, the surface of the soil showed their presence in large quantities, drawn up the rising of water from underneath, as in the case of drought.

The parched earth, every green thing dwarfed in growth or withered by long continued heat, seems suffering under an afflictive dispensation of Providence, yet we should not murmur; it is a blessing in disguise. The early and the latter rain may produce at once abundant crops, but dry weather is needed to bring to the surface food for future harvests from the depths of the earth, where else it would lie forever unemployed. It is a needed means of keeping up the fertility of the cultivated soil.—*California Farmer.*

For the New England Farmer.

CUTTING BUSHES IN PASTURES.

MR. EDITOR:—I feel inclined to say a few words in answer to "Bush Whacker," about destroying brush in pastures that are too rough and stony to plow. I think that the best method is to follow his occupation closely and keep whacking them, and cut close, i. e., keep mowing them, not once in two or three years, as is the too common practice, but at least once every year, and even twice a year, if they grow tall enough to get hold of them with the scythe.

Bushes, in common with all vegetation, draw a share of their support from the atmosphere through their foliage, and if constantly deprived of their foliage, and consequently of their atmospheric support, they will soon die. There is work in this, I know. But it is less work to mow constantly for three or four years than to mow them perpetually every second or third year, as this latter process gives them time to recover, and serves to spread the roots and increase their number.

"Once well done is twice done." After mowing, rake clean and burn the bushes, and sow on plaster and rake in hay-seed on the burnt spots; this gives the cattle a chance to browse or feed them off and tread them down. Some say that they cannot be killed by mowing, but such are either mistaken or do not do it faithfully.

Grafton, April, 1858. T. LEONARD.

sm p 280-169-

For the New England Farmer.

CROPS AND STOCK IN MASSACHUSETTS.

In your April number you noticed my address delivered at Fitchburg, before the Worcester North Society, last fall, and made a quotation in relation to the depreciation of grain and the reduction of stock in Massachusetts, and ask, "Can it be so? We wish Mr. T. would show us how the fact is obtained."

I would refer you to the Massachusetts Agricultural Transactions and Returns, by Secretary AMASA WALKER, for 1851, page 440, from a resolve of the Board of Agriculture, founded upon a report of the Valuation Committee to the Legislature in 1851, and the report of that Committee, which may be found at the Library at the State House.

You will also find it in Secretary FLINT'S report for 1854, page 480, it being an extract from the most excellent address of Hon. INCREASE SUMNER, before the Berkshire Agricultural Society. I supposed it had been generally known and proclaimed by the agricultural journals in Massachusetts, as a fact so important to the agricultural interest of Massachusetts should be sounded in thundering tones in every newspaper within our borders, that there may be a waking up to her greatest interest.

That there should be an increase of 40,000 acres of tillage land since 1840, and still a depreciation of grain crops of 600,000 bushels, and also an increase of pasture lands to the amount of 100,000 acres, and a reduction of 160,000 sheep and 17,000 swine, and a very little augmentation in neat cattle, are facts that the citizens of our State are not prepared to believe, without proof the most reliable,—yet it is too true for the credit of our ancient and far-famed Commonwealth.

At the meeting of delegates from the agricultural societies throughout the State, in Convention at Boston, March 20th, 1851, for the promotion of agriculture and agricultural science, the Hon. MARSHALL P. WILDER, from the Norfolk Society, who has ever been the great champion of agricultural and horticultural science, and who has spent great energy of mind and much money for their promotion, was chosen President of the Convention. On taking the chair, he set forth the waning condition of the agriculturist, as a whole, in the Commonwealth, and brought up these very facts with great fidelity, urging upon the Convention the importance of their consideration. Since the formation of the State Board of Agriculture, the great aim in their deliberation and action has been to wake up the drowsy energies of the farmer to the fact of the depreciating crop-producing value of their farms under the old system of culture. The reports that have been issued under the patronage of the Board by their talented Secretary, are among the most valuable documents that have been placed before the American farmer.

JUSTUS TOWER.

Lanesborough, April 16, 1858.

LIVE BRACES FOR FRUIT TREES.—Every fruit culturist knows that crotched trees are frequently split apart and nearly ruined when loaded with fruit. I have found by experience that this can easily be prevented by putting in a live brace or stay when the tree is young, to fasten the two prongs or stems of the tree together. It is done in the following manner: Take a small branch of one of the main stems, growing between the two, and cut off the top end slanting, similar to a scion prepared for lap grafting; then make an incision on the opposite stem with a sharp-pointed knife or small chisel; then insert the top end of said branch, and tie it down firmly with a woolen string; then cover the wound with grafting wax, and the work is completed; remembering to cut the string as soon as the brace has grown fast, to prevent it from girdling the tree. This is the best operation for crotched trees that I have ever seen tried.—*Elihu Cross.*

The Shakers at Niskayuna have practised a system of connecting the branches of fruit trees, something like that described above, for years, and we should be greatly obliged if some one of them would furnish us with a description of their process, with the benefits derived from it.—*Country Gentleman.*

FOOD OF THE ROBIN.

At the January meeting of the Massachusetts Horticultural Society, an interesting discussion took place upon the habits and food of the robin, (*Turdus migratorius,*) and more especially the useful or injurious relation which this bird bears to horticulture. The law prohibiting the destruction of the robin was severely commented upon by many fruit growers, who were disposed to consider the bird as a perfect nuisance to the horticulturist. The other side of the question also found able advocates, till finally, after a long discussion, the result was the appointment of a committee with full powers to investigate the matter thoroughly during every season of the year 1858, to ascertain the habits of the bird as fully as possible; to find out the nature of its food during each month, by examination of the crops of specimens killed at all seasons and on different hours of the same day; and to report from time to time at regular meetings of the society. In accordance with the duty imposed on them, the Committee have made their report for the months of January, February and March, and as the question respecting the utility of the bird has been long mooted and is of general interest, we copy the substance of it. It was drawn up by J. W. P. Jenks, Esq., of Middleboro', and, it will be observed, is decidedly favorable to the robin, though it is possible that the report of the next three months will turn the scales the other way:

"*First.* No robins were seen in this region, not even in our extensive cedar swamps, during the months of January and February, they being thoroughly explored by my direction every few days. Early in March, however, numbers made their appearance, but until the second week in April only the *male* birds.

"*Second.* I found the crops of those killed in the morning either entirely empty or but partially distended with food *well macerated*, while those killed in the latter part of the day were as uniformly well filled with food freshly taken.

"*Third.* From the almost daily examination of their crops, from the early part of March to the present date, I have obtained and preserved in alcohol, *ten* varieties of food, consisting of larvæ, coleopterous insects (beetles,) orthopterous, (grasshoppers,) and araneidaus (spiders). But nine-tenths of the aggregate mass of food thus collected, consist of *one* kind of larvæ, which belongs to the curculio family; but, as yet, I am unable to determine the species. I have frequently taken a hundred from a single crop, and, in one instance, I found one hundred and sixty-two all in a fresh, unmacerated condition. Usually, when this larvæ is found, it is the only food in the crop.

"*Fourth.* To the present date, I have not discovered the first particle of vegetable matter in the crop of a single bird."

For the New England Farmer.

FROM THE SANDWICH ISLANDS.

Makawao, Maui, Dec. 21, 1857.

GENTLEMEN:—Allow me to give you some account of our farming operations at Makawao and vicinity during the year now drawing to a close. I find that I wrote you in February, soon after our farmers had finished, as they supposed, sowing their wheat. Some two thousand acres were sown, came up well, and we were cheered with the prospect of securing a fair crop. Some of the wheat was up to the knees, and all looked exceedingly well, when our fields were attacked with such a host of caterpillars as we had never seen. Heretofore we have not much feared this insect. We have always had them more or less, but they have left us after a few days, and given place to our old enemy, the cut-worm. Not so this year. They approached us on the side next the sea, and swept all before them. More than half of the wheat sown was swept as clean as it could have been done with a sickle, and in a few days the fields had the appearance of stubble fields. Nothing dismayed, the farmers plowed and re-sowed their fields, and some of them lost the second sowing and thrust in the third. Those of us who are farthest from the sea suffered much less from this insect. Our wheat grew rapidly, but in May, when too late to re-sow, we found that our fields were destroyed or greatly injured by the rust. Some hundred acres were thus lost or nearly lost. I had scarcely my seed. I. J. Gower, Esq., my neighbor, tells me that he had not a bushel of good wheat. Kekaha, the most prosperous Hawaiian wheat-grower I have, lost fifty acres from this cause. In Makawao proper, we had so much rain during harvest time that a portion of our crop was injured, and just as we began to cut the grain, nearly every man, woman and child in the place was attacked with the influenza, so that nothing could be done, though the weather was fine. This visitation occasioned another loss, some of the grain spoiling ere it could be stacked. For a while the prospect of a wheat crop was very much darkened. I feared at one time that there would not be enough raised for seed for the coming year, and such was the impression among us generally.

Now the grain is cut, threshed, sold and most of it manufactured into flour, and much to my surprise and gratification, I am able to report that there have been sold to the Hawaiian Flour Company some 15,040 bushels of wheat, by the farmers of Makawao and vicinity, and there are some hundreds of bushels reserved for seed for next year. And most of this wheat is of an excellent quality. For some of it the agent of the Company paid $1,20; so down to $1,10, $1,00, and a small quantity ninety cents and seventy-five cents. God has been better to us than our fears; and we have occasion to bless His holy name.

Of other crops there has been an increase, so far as attention has been turned to them. Very little corn has been raised by our farmers at Makawao, as there is but little demand for it, and no grain is so soon destroyed by the weevil. But the crop of oats has never been so large as this year. They are easily raised and easily kept. The only difficulty we find is the smallness of the market. Beans also have been raised in large quantities, and they might be greatly increased, but for the smallness of our market. The mill company have not sold as much of their flour as they expected, though of an excellent quality, because a good deal of foreign flour from the United States and California has been imported. This has all along been our trouble in respect to our crops, the uncertainty and fluctuation of our markets; and it is very difficult to regulate such matters. I don't know, however, that our troubles are any greater than yours in this respect. The thing which we most need in this selfish world, is competition. This would benefit all classes. At present the mill company, composed of as good men as we have at the islands, and as good men as you have in the United States or England, have not that motive to be economical in manufacturing their flour and in selling it that they would have were there another mill. In my opinion, flour could be manufactured at Honolulu at much cheaper rate than it is now done—at nearly half the expense. I hear, too, that the company refuse this year to allow some mercantile houses to sell their flour, as they did last year, appointing one of their own number to sell all. This has proved a great injury to themselves and to wheat-growers. Some 1350 barrels they have now on hand, besides a good deal of wheat. Much of this flour might have been sold, but for the neglect or refusal to secure merchants as agents. The consequence has been the sending to San Francisco for flour while Hawaiian remains on hand. And if this shall become a drug, the company will gravely inform our wheat-growers in 1858 that the price of wheat must come down. Would men act on the principle laid down by the Saviour, in the golden rule, there would be no necessity of competition, but as things now are, we greatly need it, and shall ere long seek for something of the sort. It is needed not only in reference to wheat-growing and manufacturing, but in reference to other things. Just now, it costs more to go down to Honolulu, some seventy miles, a single night only being needed, than it costs to go from Boston to Buffalo, not

to say to St. Louis. So of freight; we sometimes pay more from Honolulu to Makawao, than from Boston to Honolulu, via Cape Horn. All in good time this evil will be remedied, if things shall continue prosperous.

December 22nd, 1857.

Let me add a few items of intelligence from the islands, and forward my communication. I have more to say on the subject of farming, its great importance here, and every where; but I may not take hold of that subject, particularly in its bearing on whalers, in this communication. I may make it a topic for *winter*, if spared. In the meantime, I hope you will present every motive in your power to induce all of our people, and particularly the young men of our country, to remain at *home*, and engage in plowing the fields, rather than tempt the dangers of the deep, and plow the ocean; or try their fortune in the mines of California. Early in the year, two young men, sons of missionaries at the islands, obtained a reluctant leave of their parents, and going to California, tried their hand at mining. One of them gave out after a few weeks, and sought his island home. The other held on awhile longer, suffered a good deal of hardship, and some sickness, made nothing, and finally left, fully satisfied with his experience in the gold-digging line. Good will result from the experience of these boys, good to themselves and good to other boys of the mission. The state of things at the mines is truly deplorable. No Sabbath—no God—no hope—is true of a vast majority of the wretched men who congregate in that wretched land. How infatuated are the men and youth who leave a New England home for the country of gold, thus putting in jeopardy their every interest, and hazarding their undying souls. The Lord save our countrymen from this egregious folly.

Yours truly, J. S. GREEN.

P. S. Not long since the Royal Hawaiian Agricultural Society had a meeting which the newspapers called the *annual meeting*, though a year and a half had passed since the last meeting and fair, with the annual address. Judging from appearances, I think it may be safely concluded that the society, as an agricultural society, is defunct.—True it lives nominally, and officers were chosen for the next year, but I see no list of committees, nor subjects for discussion for another annual meeting, nor do I see that the society adjourned either *sine die* or otherwise. James F. B. Marshall, Esq., the retiring President, delivered an address, not particularly interesting, I judge from reading it, but as able perhaps as could have been expected from one who perhaps thought himself pronouncing a funeral oration over the remains of the society. I could give some half a dozen causes for the decease of the society, or for its change to a kind of seed, fruit and plant society. One cause may be seen in the material of which the society was composed. Mr. Marshall tells the story in a few words. On examination, he found it thus on a list of members: Of the whole number 216: of these were 55 merchants and traders; 44 government officers, 24 clerks, 20 missionaries and clergymen; 16 mechanics; 7 officers of foreign governments; 6 hotel keepers; 6 physicians; 5 sea-captains; 5 lawyers; 2 school-masters; 4 editors; 1 traveller—195 non-agriculturists, and 10 grazers and 11 planters and farmers—but 21 practical agriculturists in all. Who can wonder that a society composed of such materials should cease to feel an interest in the professed object of such a society? Had the 216 men who were members of the society been agriculturists, or a majority of them, the results of their labors and deliberations since 1850 would have been very different, I judge. Another cause I find in the want of variety in subjects selected and given out to committees at one meeting, to be written upon and read at the next meeting. Nearly the same subjects were committed to committees each year of the society's existence. No variety, no advance; so that reports became stale. The *fair* had considerable interest for two or three years, and some degree of interest while they continued. So also the annual addresses, which were not commonly given to working-men who took a lively interest in the society, but more frequently to foreign officials who knew little of agriculture, and less of the islands—these called out an audience; but the dissertations however important or interesting they might have been, were commonly read to nearly empty seats. Some few even at Honolulu took an interest in the society. The late Judge Lee seemed to have his heart much set upon the success of the experiment which was being made in agriculture among us. Had this excellent man enjoyed health, I doubt not he would have held on to the society, and done still more than he did, for its prosperity. But he could not sustain it alone. I hope it has done good. Some six or eight numbers of the Annual Transactions of the society were printed and distributed among the members of the society, and perhaps sent abroad. In good time, another society, or other societies may spring up from the ruins of the old one, composed of more practical men—materials, if not better, certainly of more homogeneous character. We shall see in good time.

Things with us much as usual. Some commercial embarrassment, but nothing very serious at present.

Your fellow-laborer in the cause of agriculture.

J. S. GREEN.

For the New England Farmer.

MANURES FOR INDIAN CORN.

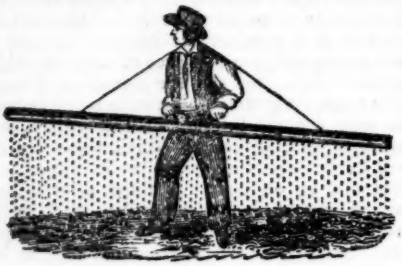
The paper on this subject, lately given to the public in the *Country Gentleman*, by Mr. Harris, of Rochester, N. Y., is truly instructive. He states things just as they come to his observation, without regard to preconceived theories. This is the only just way of acquiring or communicating knowledge.

I am truly surprised at the little benefit derived from the use of ashes of wood. There is no fertilizer sought with more avidity, or used with more success in this vicinity. Ashes have been found valuable for corn, and also for root crops generally, to which they have been applied. So great has been the success in the use of ashes, that no one despaired of a good crop, when they could command a full supply. Of the comparative value of ashes, leached or unleached, I have heard various opinions. They are used in greater quantities, on our lands, after they have been

leached—under the apprehension that they are equally valuable for growing crops. It is very clear, from Mr. H.'s experiments, that no reliable conclusions can be deduced from theory alone. The same gentleman, if I do not mistake, has recently expressed a like opinion as to analyses of soils. So fast are the improvements of the present day, that it takes as much care to unlearn what is erroneously stated, as to find out, by actual trial, what is correct. ESSEX.

April, 1858.

WELLS' GRASS SEED SOWER.



Some three or four weeks since we spoke of this Seed Sower in general terms, not then having had an experimental knowledge of its ability to sow grass seed quickly and well. Since then we have used it to stock several acres with grass seeds of various kinds, and found it to answer the purpose admirably for which it is designed. It is always difficult to sow grass seed evenly, under favorable circumstances, but when it is windy, or it is to be done by inexperienced or unskilful hands, not only a loss is incurred by a waste of seed, but by having some portions of the field overstocked while others are left bare, thus rendering both unproductive. A money loss is felt, and a loss of that just and proper culture in which any good farmer feels a proper and honest pride.

The use of *Wells' Seed Sower* will prevent these occurrences; it scatters the seeds evenly and with rapidity, so that an acre may be well sowed as fast as a man can comfortably walk over it at distances about *nine* feet apart. In order that the whole ground shall be covered, it is well to let the sower lap a little at each succeeding breadth.

A single sower will answer for a neighborhood of a dozen persons, and it is so light that a child can carry it from place to place. For sale by Nourse, Mason & Co., Quincy Hall. Price $4.

THE GAPES IN CHICKENS.—A correspondent says: Tell those of your readers who are interested in raising chickens, that a small pinch of gunpowder, given to a chicken with the gapes, will effect a sure and complete cure in from one to three hours' time, and leave the chicken healthy and hearty.—*Cal. Farmer.*

For the New England Farmer.

REVIEW OF THE FALL AND WINTER.

MR. EDITOR:—After the rigors of winter have passed, and the time of singing of birds has arrived, and nature wears a more congenial aspect, it may be well to recount those meteorological conditions which have been the main features and governing principles of the past winter. A winter not of extreme heat nor of extreme cold, but a winter whose changes of temperature have been congenial, for the climate of the green hills of Vermont. Although its heat and its cold have not been excessive, yet the quantity of snow has been extremely small, and so has the quantity of rain during the winter months.

In this review of the winter I will include the autumnal months to *October*, to the time when I closed the review of the summer of 1857. The rains continued through October, and two inches of snow fell on the 20th. The whole amount of rain and melted snow was 5.60 inches, and the temperature was 44.95 degrees, it being colder than the four preceding years by 2.39 degrees, and is the coldest October since 1853. Its extreme daily mean temperature was 58.66 and 30.66.

November was a mild month. Its mean temperature was 36.85 degrees, which is 2.58 above the mean. The storms were frequent and light. There was 2.14 inches of rain and one inch of snow.

December was unusually mild. Its temperature was 27.70, and was 4.64 above the mean. There was 2.52 inches of rain and 7.50 of snow. Storms were frequent and light, and winter began so gradually that the time of its commencement cannot be correctly stated, as we had little or no winter weather through the month.

January, 1858. This has been the mildest January for many years. Its temperature was 24.30, being 6.82 degrees above the mean of the five preceding years, and 15.61 deg. warmer than last year, which was the coldest of the last six years. The amount of precipitation was 1.83 inches of rain and melted snow, and 7.25 of snow. The highest daily mean was 43.66 deg., and the lowest, zero. The murcury stood below zero only a part of one day during the month.

February was rather a cold month. Its temperature was 15.51 deg., being 4.20 below the mean, and 11.55 colder than February last year, which was the warmest of the six. The whole amount of water which fell during the month was .61 of an inch, which was produced by 5.50 inches of snow, but no rain. The thermometer stood at or below zero eleven mornings and four evenings, but did not sink to zero at 2 P. M. during the month. The mean was below zero five days, and the greatest extreme was 13 deg. below zero, on the morning of the 16th.

Although *March* has been a mild month, yet it has been about one degree colder than the mean; and the coldest of the past six years, with the exception of 1856, which was about four degrees colder than the present. We had 1.48 inches of rain and five inches of snow during the month, while last year we had 2.29 of water and 10.75 of snow; thus showing that our storms have been far less this year, which gives the month a more pleasant appearance.

We have had 27 inches of snow and 14.18

inches of rain during the last six months, which is about half the quantity of snow that fell during the corresponding months of 1856-7, and nearly an equal quantity of rain. There has been little or no good sleighing, although the ground has been partially covered with snow the greater part of the time. The amount of snow at any time would not exceed five or six inches, while its average depth was less than two inches; consequently the ground has been frozen to a great depth. The earth is extremely dry, owing to the small quantity of rain which has fallen during the past two months.

The birds have made their appearance in the following order: Blue-bird arrived March 17; robin, 19; black-bird, 27; Phœbe and meadow-lark, April 1. Vegetation has not made any progress, and the fields look barren and desolate. There was a thunder-storm last night, which passed to the north, at about 6 P. M. Another came over this place at a little before seven, with heavy, rolling thunder and vivid flashes of white lightning. The color of the lightning denotes a low cloud, which appeared to cover only a limited space. Our first thunder-storm last year was on the evening of the 28th of May, nearly two months later than the present. To-day the Green Mountains are clad in their robes of white, wearing the aspect of winter—a natural consequence of an electrical disturbance, which passes away as the equilibrium is restored.

D. Buckland.

Brandon, Vt., April 6, 1858.

SHALL WE EAT PORK?

Messrs. Editors:—We shall, of course.—The question is altogether superfluous. Nine-tenths of us have from one to a dozen porkers, within a stone's throw of our dwellings, (the other tenth wish they had,) and what shall we do with them? Your correspondent might as well inquire, "when we are hungry, shall we eat or starve?" No one feels that the old Levitical laws are binding on us of this generation; they are the fossil remains of the buried and almost forgotten past, and are not to be classed with the commands of the Decalogue, which are founded, as I believe, upon eternal principles of right. Commentators teach, and our reason accepts the teaching, that the law concerning swine's flesh was enacted from causes local and peculiar to that climate and people. The anti-swiners will admit that what is very proper food in one climate, may be improper in another; and a slice of raw blubber may be very palatable and stomachic in latitude eighty, with the mercury at forty below zero, while at the equator the same article would be disgusting. I have seen many men who professed the same belief as your correspondent; but they will all confess themselves in the daily use of that which their reason and conscience so strongly condemn. The fact is, gentlemen, your scruples are not skin deep, nor need they be. The vision of the Apostle ought to teach us, as it did him, that what God has cleansed, we should not call unclean. That there is a large class of diseases brought on by the use of pork, "I deny, and call for proof." What if I assume that it is the use of beef that brings on the diseases to which you refer; is not my position as tenable as yours? But "every creature of God is good, and nothing to be refused," but they should be used with moderation as well as received with thanksgiving. The human economy requires a certain amount of carbon to keep up its fires and lubricate its bearings, and we find the article in a highly concentrated and convenient form on the back of a well fatted porker. What a cunning elaborator of essential oils the comfortable rascal is! He is a true gentleman of science, and in his little laboratory, he performs feats of analysis unapproachable by a Johnson. He will filter the slops of the kitchen, resolve into their constituent elements the refuse of the garden, "from seeming evil still educing good," and separate and assimilate the surplus of the grain-field, and, interstratified with muscle, will be found a whole "carboniferous system" on his back and sides, as the result. And how the residuum, when applied to the garden, "with transport touches all the springs of vegetable life!"

The fact is, gentlemen hog defamers, you must reform your habits, and tell your ladies to moderate their cuisine. Don't set down and "stuff you full as an egg" of fried sausages, and hot buckwheat cakes, saturated with their fat, and then in a fit of indigestion, mentally send all pigdom down a steep place into the sea. Don't lay your gastronomic sins at the door of the sty, when they should be laid at the door of your face. You would not think of building a rousing anthracite fire in your parlor, with the mercury at ninety, nor should you build one equally fierce in your corporeal kitchen with fat pork, under like thermal conditions. When you can raise 150 lbs. of steam with pine wood, what is the use of rosin? Regulate your fires then according to the season, and let piggy live and enjoy his brief year; and with the pork-barrel well filled with his embalmed remains, you may snap your fingers at the wintry blasts that howl drearily around your dwelling.—*Country Gentleman.*

For the New England Farmer.

INDIAN CORN.

I am happy to learn from "M. A.," in the *Farmer* of this date, that he never reported 145 bushels of corn to the acre. I am glad that such a statement has not the sanction of his authority. I had the impression that he had thus averred—but I may have confounded the remarks of the *Ploughman* on the subject—and not having the papers at hand, to refer to, must leave it, with the reflection that his professional cloth is more likely to be correct than my own, though in matters agricultural, I always endeavor to speak truly, according to my knowledge. I heartily concur in the opinion that there is increasing attention given to the culture of Indian corn, and that it is becoming to be looked upon as one of our most valuable crops. I, this morning, sent a parcel by express, to a distinguished agriculturist, in the Empire State, telling him that the variety had been cultivated on my native hills for *twenty years* or more; that it made good Johnny cakes, and good pork—and these afforded as good living as was enjoyed by our Pilgrim Fathers.

P.

April 17, 1858.

For the New England Farmer.

PEARS ON QUINCE STOCKS.

MR. EDITOR:—As there has been much said about the pear on the orange quince, I will tell you my experience. I pull up the sprouts from the roots of old quince bushes—the best come from the ends of small roots—shape the roots and tops, set them in rows three feet and a half apart, and the sprouts about ten inches apart in the rows, perhaps fourteen inches would be better. When they are well rooted and large enough, bud or graft them as near the ground as possible, so that you can fetch the soil up over the joint. Bud when the stock is half an inch in diameter and graft when it is three-fourths of an inch. I have thought that grafting was the best, but either way will do well.

The kinds that have failed with me are the Bartlett, Golden Beurre, Dix, Russel, Seckel, Glout Morceau, St. Michael, Passe Colmar, Beurre Diel, and some others. The kinds that grow and bear well, are the Louise Bonne de Jersey, English Jargonelle, Napoleon, Duchess de Angouleme and Beurre de Aremberg. The Thorn and Sugar plum will do for stocks when we know the kinds that will unite with them.

I have a very thrifty Glout Morceau on the sugar plum, full of blossom buds now; I grafted a wild pear into the thorn, which grew strong, then budded and grafted into that the Dix, the Seckel and Flemish Beauty, which are growing finely, and the Flemish Beauty is now full of blossom buds.

I had a Passe Colmar on the thorn which grew well for three years, then broke out, but it had rooted above the joint. I removed the thorn root, then set the tree down, and it is doing well now.

I have about sixty apple trees, from one to two inches through; some animal bites them in the spring so as to loosen the bark from the ground up one foot and a half. I lay it to the woodchucks, but my neighbor thinks it the skunk, for he set a trap and caught the skunk and the trees were not bit after that.

I made a wash of one quart soft soap, quarter of a pound of sulpher, a hoe full of green cow manure, and five quarts water, and put it on with a brush or swab; the animal stuck his teeth in a few times, but did not injure them afterwards. Last fall I put the same wash on, to prevent the mice, and I believe not a tree is injured where I put it, while my neighbors complain that theirs are injured by the mice.

OLIVER BUTTERFIELD.

Francestown, N. H., April 13, 1858.

For the New England Farmer.

POUDRETTE.

I have often thought what a pity it was that so valuable a fertilizer as our night soil should be made almost wholly worthless in its manufacture through the cupidity of those engaged in preparing it.

No one will doubt for a moment but what pure night-soil, with only just enough of foreign matter with it to deodorize and make it usable would be one of our most valuable concentrated fertilizers, and as such, no doubt would find ready purchasers—but if we are compelled instead of this to purchase an article, three-fourths or more of which is composed of Jersey sand or muck—why, all is, we shall not probably be caught but once by *that* bait.

Do please, Messrs. Manufacturers, give us a pure article, and I will warrant you not to be obliged to advertise for the address of farmers—or have to make them a present of an almanac in order to obtain their custom. At least, I will promise you *one* purchaser. W. J. P.

Salisbury, Conn., April 22, 1858.

THE PREACHING OF THE TREES.

FROM THE GERMAN OF ORDEN.

At midnight hour, when silence reigns
Through all the woodland spaces,
Begin the bushes and the trees,
To wave and whisper in the breeze,
All talking in their places.

The Rosebud flames with look of joy,
And perfumes breathes in glowing;
"A Rose's life is quickly past!
Then let me, while my time shall last,
Be richly, gaily blowing!"

The Aspen whispers, "Sunken days!
Not me thy glare deceiveth!
Thy sunbeam is a deadly dart,
That quivereth in the Rose's heart—
My shuddering soul it grieveth!"

The slender Poplar speaks, and seems
To stretch her green hands higher;
"Up yonder life's pure river flows,
So sweetly murmurs, brightly glows,
To that I still aspire!"

The Willow looks to earth and speaks:
"My arm to fold thee yearneth,
I let my hair float down to thee;
Entwine the rein thy flowers for me,
As mother her child adorneth!"

And next the wealthy Plum tree sighs;
"Alas! my treasures crush me!
This load with which my shoulders groan
Take off—it is not mine alone:
By robbing you refresh me!"

The Fir tree speaks in cheerful mood:
"A blossom bore I never;
But steadfastness is all my store,
In summer's heat and winter's roar,
I keep my green forever!"

The proud and lofty Oak tree speaks:
"God's thunderbolt confounds me!
And yet no storm can bow me down,
Strength is my stem and strength my crown;
Ye weak ones, gather round me!"

The Ivy vine kept close to him,
Her tendrils round him flinging;
"He who no strength has of his own,
Or loves not well to stand alone,
May to a friend be clinging!"

Much else, now half-forgot, they said:
And still to me came creeping,
Low whispered words, upon the air,
While by the grave alone stood there
The Cypress mutely weeping.

O! might they reach one human heart,
These tender accents creeping!
What wonder if they do not reach!
The trees by starlight only preach,
When we must needs be sleeping.

For the New England Farmer.

HOW TO PREVENT HARD TIMES.

In the year 1832, when the cholera first reached Boston, many were alarmed, and suddenly cried out, as in days of old, "What shall we do to be saved" from the jaws of this monster disease? My reply usually was, "You should have asked this question many years ago." So with regard to the present wide-spread and increasingly alarming pecuniary distress. To those who cry out in the intensest mental agony, "What shall we do?" I usually reply, "You ought to have asked this question, with solicitude, many years ago." Young men, above all others, at their first setting out on the journey of life, should both ask, and find a reply to this question.

It may not be useless to present a list of cases of young men who early pursued an anti-hard-times course, and lived to reap the full benefit of it. Although I suppress their names and place of residence, the reader may be well assured they are *real* cases, and not only *real*, but *living* ones.

S—— D., of N., in Mass., when, at the age of twenty-one, he was fairly released from the paternal farm, hired out to a neighboring farmer two years, at twelve dollars a month and board, of which he saved, besides clothing himself, two hundred dollars. His wages, under a new employer, were now raised to fifteen dollars a month or one hundred and eighty dollars a year, of which he laid up *one hundred and fifty*.

A. G. L., of W., in Conn., after reaching the age of twenty-one, labored a long time for seventy-five dollars a year and his board; of which he laid up fifty. It must, however, be admitted that he had some mending done for him by his friends, gratuitously.

Mr. —— T., of L., in Mass., after the age of six years, wholly sustained himself by the avails of his own labor, with the exception of twenty dollars. It may also be added that from the age of six to fifteen, he subsisted on brown bread and milk.

W. A. W., of W., in Conn., at the age of twenty-two, had remunerated his parents for all the expense to which, in the progress of his bringing up, both early and late, he had been subjected.

All these individuals are, at present, men of decent property, good standing, and respectable character, and in most respects beyond the reach of *hard times*. Thousands of young men among us may learn a lesson from them and "go and do likewise." It may not, indeed, be necessary or even practicable for young men to clothe themselves for twenty-five or thirty dollars a year; but with their increased wages they may economize in the same proportion. If with one hundred and forty-four dollars a year, Mr. D. could lay up one hundred dollars, he who now receives two hundred and sixteen can lay up one hundred and fifty. And the young man who will do this, will be wise and economical in other matters; and will be duly fortified against hard times. W. A. A.

WILL UNDERDRAINING PAY?—This depends on circumstances. If good naturally underdrained land can be obtained in your neighborhood for from $15 to $20 per acre, it would not pay, in all probability, to expend $30 per acre in underdraining low, wet or springy land; but in all districts where land is worth $50 per acre, nothing can pay better than to expend from $20 to $30 per acre in judicious underdraining. The labor of cultivation is much reduced, while the produce is generally increased one-half, and is not unfrequently doubled; *and it must be remembered that the increase is net profit.* If we get $15 worth of wheat from one acre and $20 worth from the other, and the expense of cultivation is $10 in both cases, the *profit* from the one is twice as much as from the other. That judicious underdraining will increase the crops one-third cannot be doubted by any one who has witnessed its effects. If it should double the crops, as it often does, the *profit* would be four-fold.—*Genesee Farmer.*

EXTRACTS AND REPLIES.

A BUTTER COW—100 POUNDS PER MONTH!

A reliable gentleman, residing in Dedham, Mass, informs me that he is owner of an imported Alderney cow, from which he can make one hundred pounds of butter per month, for three months—May, June and July. Is it possible?—and what is the fair product of what is styled a *good* cow?

The above cow cost $400. G. M. L.

Boston, April, 1858.

REMARKS.—About *twenty-one* pounds per week! Yes, it is possible, but without ocular demonstration, the statement would be hard to believe. A cow that will yield *ten* pounds of butter a week is a "good cow;" one that yields *fifteen* pounds a week is an *extraordinary* cow,—and one that yields *twenty-one* pounds per week, for thirteen weeks in succession, is such a cow as few people have yet seen.

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DORKING EGGS.

Will you inform me where I can obtain the eggs of the pure White Dorking fowl? and also if the latter will *mix* if allowed to run with hens, (hens only) of another breed? G.

Auburn, N. H., April 14.

REMARKS.—The eggs may be procured at Mann's, Court Square, Boston, at 50 cts. per dozen. There can be no mixture under the circumstances you describe. —

THE QUICKEST TIME SHOEING HORSES EVER KNOWN.

Mr. H. J. BATCHELDER, of this town, set two shoes, after the feet were fitted, drove eight nails in each shoe, and finished them up in two minutes, fifty-five seconds! Also, he took off two shoes and pared the foot, set on the shoes and finished them up in a workmanlike manner, in six minutes!

Mr. Bachelder served his apprenticeship in this State and Massachusetts, spent the last two years in West Fairlee, Vt., and is now employed by Amos Morrill, of this town, where any person who will favor him with a call can get as good shoeing done as can be found in the world.

Strafford, Vt., 1858. SOUND FOOT.

TO PREVENT CROWS, BLACKBIRDS AND CUTWORMS FROM DESTROYING CORN.

Stir in warm tar with the corn, then mix with plaster before planting.

Plant no pumpkins except in the outer rows, and give the plant a direction outward.

Will tar applied to young apple trees late in the fall, prevent mice from gnawing them?

Mt. Holly, Vt. J. P.

REMARKS.—Tar might prevent the gnawing by mice wherever it is applied, but would it not be dangerous to a young tree to cover so much of its stem as would be necessary to keep it from mice? Snows drift about young trees, and we have seen them completely stript of their bark three or four feet from the ground.

WHITE STRAWBERRIES.

I have on hand a small lot of white strawberry plants, which I wish to introduce into the market. They bore abundantly last season, were ripe as early as any which I had, and held out the longest.

I would be much obliged if you would give me a little information in regard to grafting an orange tree; I have one very thrifty, about two years old, which has never blossomed.

AUSTIN C. PACKARD.

North Bridgewater, April, 1858.

REMARKS.—This publication will introduce the "White Strawberry," and perhaps induce some one who knows to tell you about grafting the orange tree.

CRANBERRY PLANTS.

Can you inform me where I can obtain the best kind of cranberry roots sufficient for setting three or four acres? A SUBSCRIBER.

Winchendon, Mass., 1858.

REMARKS.—Select the plants bearing the finest-looking berries you can find in the neighborhood of the land you intend to plant. This is the course we should take.

RELATIVE VALUE OF ARTICHOKES.

Will some one inform me of the relative value of artichokes compared with potatoes, or other roots, as feed for swine or cattle. They can be made to yield four hundred bushels to an acre, and be dug in the spring, at a time when there is a scarcity of other vegetables. A FARMER.

Windsor, Vt., 1858.

COVERING MANURE.

* * * I am confident from forty years' experience, that it will not do to bury manure very deep in the cold region of Vermont.

Waitsfield, Vt., 1858. ERASTUS PARKER.

TO STOP THE NOSE-BLEED.

Firmly press the thumb and finger on opposite sides of the nose, immediately below the bone, from three to ten minutes, according to the rapidity of bleeding. If the bleeding be in the extreme point, then compress that part in a similar manner. L.

ARTIFICIAL WHALEBONE.

It would almost seem that science, in its rapid march, would finally procure for the great whales of the deep a respite from the tormenting and deadly assaults of the harpoon. Artificially made oils and fluids are steadily displacing animal products for purposes of illuminations, and now by a somewhat recent discovery the bone of the whale is no longer needed to supply our umbrella and skirt-makers with skeleton frames. In 1855, Joseph Kleemann of Meissen, Germany, obtained a patent for a mode of preparing a substitute for whalebone. The process has been put into practice in this city by Vellman, Solomon & Co., who are turning out about twenty thousand umbrella frames every week! It consists in taking sticks of the common ratan and soaking them in a liquid extract for about four days, after which they are immersed in a solution of any of the iron salts, which gives the ratan a a deep black dye. Subsequently the sticks are exposed in a close vessel, for the space of about one hour, to the action of steam of about three or four atmospheres' pressure, and then thoroughly dried in a furnace or drying room at a temperature of about 180° Fah., when they become ready for the impregnating process.

The sticks are then placed into an iron cylinder (capable of standing the pressure of at least ten atmospheres,) connected by a pipe with an open vessel, containing a varnish made by dissolving 120 parts of shellac and 100 parts of burgundy pitch in 90 parts of absolute alcohol. The air having been exhausted from the cylinder, the cock connecting it with the vessel containing the varnish is opened, when the atmospheric pressure will force the varnish into the cylinder and into the pores of the ratan.

The impregnation of the ratan is rendered more perfect by the use of a pump for forcing the solution into the cylinder. The ratan has now changed its character and become hardly distinguishable from the best quality of whalebone, except that it is somewhat more elastic and less liable to splinter and break. It has gained one hundred per cent. in weight by impregnation. After being removed from the cylinders, or impregnators, but little remains to be done in the way of drying, polishing, fitting the ends, &c., to prepare it for use for umbrellas, parasols, canes, &c., and various other purposes.—*Scientific American.*

REMEDY FOR LEAKS.—A correspondent of the *Lynn News* says:

Some years ago I had a leaking "L." Every northeast storm drove its waters in. I made a composition of four pounds of rosin, one pint linseed oil, and one ounce red lead, applied it hot with a brush to the part where the "L" joined the main house. It has never leaked since. I then recommended the composition to my neighbor, who had a lutheran window which leaked badly. He applied it, and the leak stopped. I made my water cask tight by this composition, and have recommended it for chimneys, windows, &c., and it has always proved a cure for a leak.

For the New England Farmer.

HORSE TAMING.

MR. EDITOR:—The art of subduing horses of vicious and ungovernable dispositions, has assumed an importance only commensurate to its great utility. The wonderful success of our countryman, Mr. Rarey, in England and France, has created a great excitement, and a consequent desire to be informed of the method by which these astonishing results are achieved. I am more particularly induced to revert to this subject, from the fact that numerous recipes have been published in New England papers, professing to be the method by which Mr. Rarey subjugates and has acquired so much control over the horse. One of the recipes is as follows: "Take the grated horse-castor or wart, which grows on the inside of the horse's legs, put it on an apple or other enticing substance, and let him eat it; then rub a few drops of the oils *Cumin* and *Rhodium* upon his nose."

It is stated that these drugs possess some potent charm by which the animal is rendered obnoxious to his vicious propensities, and his disposition radically changed to that of subservience, docility and implicit obedience to the mandates of his conqueror. In response to which I unreservedly assert that no such result is produced. The horse castor exhales an extremely pungent ammoniacal effluvium. The oil of Cumin is manufactured from the seed of the same name, and in smell somewhat resembles turpentine; it is very persistent, and will volatilize its strong odor without any perceptible diminution for several days. The oil of Rhodium takes its name from the island of Rhodes, or roses. It is procured by maceration from rose-leaves, and has a very agreeable and powerful aroma. The use of the drugs in subduing an ungovernable animal is quite limited. Their powerful smells serve to attract his attention for a few moments, and in this manner, may possibly prove auxiliary to subsequent operations in ameliorating his incorrigible temper.

It is a fact, authentic beyond all cavilling, that horses imbued with the most intelligence and qualities of endurance, are generally the most stubborn and implacable; hence, the inestimable value of some process by which they may be reduced to domestication and consequent utility. The plan pursued by Mr. Rarey and myself produces this result, and therefore its importance. No horse will submit to man unless convinced of his superiority. To obtain this supremacy in ordinary cases require no skill, but where the anmal is headstrong and obstinate the matter assumes a more formidable aspect, and defies the orthodox means by which success has been realized.

The obdurate horse, then, must be vanquished in a trial of strength, he must be placed in such a position that all his efforts and struggles at resistance shall be skilfully encountered, and rendered futile. This accomplished, the horse becomes a slave, and only as such, is he useful. In this lies the whole secret of horse taming. It requires nothing but confidence, fearlessness, and patience and perseverance in the operator to perform what appears to be almost miraculous. The time required to conquer the horse varies with the animal's disposition, from fifteen minutes to three hours, and in a few isolated cases, it is necessary to repeat the operation. In general it is quickly and noiselessly accomplished, but at times the struggle is severe and protracted, but success invariably eventuates; during the period I have imparted instructions in horse training I have had several very vicious animals subjected to my treatment, which I have in no instance failed to conquer.

I am not at liberty to give the details of my practice, as it would interfere with my pecuniary interests. The secret has been known to a few horse-trainers in this country for many years. And in the elementary operation pursued in gentling the horse for the uses of the amphitheatre and hippo-dramatic performances, it has always been regarded as a great secret, and only imparted by professional horsemen under the seal of secrecy, and for a large remuneration. Mr. Rarey is not the originator, but his familiarity with the horse has developed in him a superiority and skill, which the amateur cannot realize. In conclusion, I would remark that any man that can handle a horse, can effectually operate my method of subduing him. Yours respectfully,

New York, 1858. CALEB H. RANY.

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For the New England Farmer.

BARNS, AND BARN ROOM.

MR. EDITOR:—Your correspondent, "Pine Hill," in the *Farmer* of Jan. 30th, gives a description or plan of a barn, in reply to the inquiries of a "Subscriber," which I think will not meet the approbation of farmers generally.—Twenty feet posts is decidedly an inconvenience, for it is imposing upon the pitcher of hay, a task that is extremely irksome, in the hottest season of the year. Sixteen or eighteen feet posts, to the extent, is as high as a person of ordinary muscles and strength would wish to pitch, while heated with a hot July's sun.

Your correspondent recommends a "brick underpinning two feet high, containing, at suitable distances, small doors eighteen by sixteen inches, for the purpose of light and ventilation. The cellar should be at least eight feet deep, with two rows of brick piers eight feet apart—the whole length of the barn. The entrance to the cellar for teams should be at one end, secured by a tight door." It is obvious that a barn should be built in the most thorough and substantial manner, therefore underpinning should be dispensed with, especially, a brick one. A well constructed wall three feet in thickness laid in mortar and cement, makes a substantial foundation for the barn to rest upon, which joiners readily admit is preferable to underpinning. Instead of the small doors for light and ventilation, windows on hinges are decidedly preferable, as they will afford these at will; this obviates the necessity in extremely cold weather of keeping a door open for the sole purpose of affording light.

The space for windows can be reserved while completing the wall, in less time and with less trouble and expense than could be done in procuring and setting underpinning. I presume "Pine Hill" would have the two rows of piers stand directly under the posts in the body of the

barn; such being the case, the drive-way would be only eight feet in width, which would be too narrow for either barn or cellar. The drive-way in the cellar being under the drive-way in the barn, its entrance must, of necessity, preclude the privilege of driving through the barn, which is not good policy. The trap-door in the floor-way should be dispensed with, and the cellar should be of such depth as to admit of tipping a cart. The "Model Barn" in the *N. E. Farmer*, p. 272, vol. 4, embraces much that is economical and convenient. MIDDLESEX.

Feb. 26, 1858.

MASSACHUSETTS AGRICULTURE.

We have before us the fifth annual report of the Secretary of the *Massachusetts State Board of Agriculture*, together with the reports of committees appointed to visit the autumnal exhibitions of the several county societies last fall. The volume is a handsome octavo of 371 pages, on fine, white paper, is illustrated with excellent engravings of horses, cattle, sheep, swine and agricultural implements,—it is printed well, edited with ability, by Mr. Secretary FLINT, and is a credit to the Board of Agriculture and to the State under whose auspices it has originated.

The volume opens with an account of the recent operations of the Board of Agriculture and of the State Exhibition last autumn, and its results, and incidentally giving an account of an effort to organize a new Massachusetts Agricultural Society. The Secretary then proceeds to give a detailed account of the State Fair held in Boston, last October, into which he has introduced beautiful portraits of some of the stock exhibited, among which are a Short Horn bull, an Ayrshire bull, five portraits of horses, two groups of Cotswold sheep and a Hereford bull and heifer, owned by the State, and kept at the State Farm, at Westboro'. The volume is also interspersed with numerous engravings of agricultural implements, articles used for dairy purposes, &c.

In arranging the statements of the competitors for premiums and the reports of the judges, the Secretary has not contented himself with presenting us a dull detail, merely, of these matters, but has enlivened them with a short, clear and comprehensive account of the origin of the animal under consideration, together with a brief description of its characteristic points. These terse essays, wrought in, as they are, among the dry mass of heavy statements of fact, are like gushing springs or green oases, in hot sands, kindling and enlivening the whole work, and giving it an attraction which it must have failed to possess without them. They are drawn with fidelity, indicate considerable research and industry on the part of the Secretary, and we think may generally be relied upon as correct; while the engravings of which we have spoken, are introduced among the descriptions, so that each may give force to the other. Some of the subjects considered are as follows: viz:—

Improved Short Horns; North Devons; Ayrshires; Herefords; Alderney or Jersey Cattle; Grade or Native Stock; Milch Cows; Working Oxen and Fat Cattle.

Then comes the subject of *horses*, and the first introduced is the Thorough Bred; then Roadsters and Horses for General Utility. The same plan is pursued with regard to Sheep, Swine and Poultry. Agricultural Products, including the Dairy, are also considered. The subjects of Agricultural Implements, of Wine, of Entomology, each receives a liberal share of attention. A somewhat detailed account of the doings of the Board of Agriculture on the State Farm for the last year, closes the report of the Secretary.

Some forty or fifty pages of this report are occupied in a mere detail of entries by the competitors, and are then reported back again in a different form by the judges. This is all proper in this volume, but to repeat it in less than ten years, would be a waste of space and energy. Once, at the expiration of ten years, these details will be valuable to afford a contrast and show whether we are advancing or receding. As a whole, the Report is one of much value, while there is little, very little, to which reasonable objections may be urged.

The second portion of the volume is made up of *abstracts of returns from the county agricultural societies of the State*, and first, of extracts from addresses delivered before them. These extracts are of no ordinary character; they indicate a wide range of inquiry and learning in their authors, and, as literary productions, will compare favorably with the literary labor of the best reviews of the country. They are also remarkable for their pure tone of morals, for the just and attractive views of rural life which they present, and for their earnest faith in the progress of agricultural art and its remunerative results. It affords us sincere pleasure to bring together upon this page the names of those persons who left the feverish pursuits of commerce, physic, law or other occupation, last autumn, to commune awhile with Nature in her fresh and glowing walks, and to instil into others the wholesome and charming sentiments of which they are themselves the happy recipients. We wish we could send to every farmer's fireside in the Commonwealth, some one of these Addresses, so full of well-tempered zeal, so rich in encouragement, and so abounding in common sense and high-toned morality, and firm faith in Him who has promised us perpetual seed-time and harvest. We now subjoin the names of such persons as the Secretary has reported, who have done themselves an honor, and their

State a distinguished service by giving a portion of their time and talents to the important cause of agriculture. We take them in the order in which they stand in the volume, and the first is that of Dr. E. G. KELLEY, before the Essex Society, at Newburyport. Subject—"*The Farmer's Home and its Embellishments.*"

Rev. CHARLES BABBIDGE, before the Middlesex Society, at Concord. Subject—"*Agricultural Heart-Work.*"

E. F. SHERMAN, before the Middlesex North, at Lowell. Subject—"*Articles of Food.*"

GEORGE M. PRESTON, before the Worcester South Society. Subject—"*Agriculture in its relations to the Sciences.*"

Prof. JOHN A. NASH, before the Worcester West Society. Subject—"*How to better Farmers.*"

JUSTUS TOWER, before the Worcester North Society. Subject—"*The Farmer's Position.*"

Rev. ALVAN LAMSON, before the Norfolk Society. Subject—"*Farming in some of its Intellectual Aspects.*"

By GEORGE. S. BOUTWELL, before the Barnstable Society. Subject—"*System of Agricultural Education.*"

By A. B. WHIPPLE, before the Nantucket Society. Subject—"*Forethought in Farming.*"

The attentive reader cannot fail to observe what a wide field of research is opened in the introduction of these topics, and what an opportunity is afforded to ingenious and cultivated minds to expatiate upon the advantages, charms, and blessings of rural life. Faithfully, and with sincere fervor, have our authors performed their part, and the bread which they have thus cast upon the waters, will surely come back to them, blessed and multiplied exceedingly. We cannot withhold an expression of our admiration of their labors, and of the personal obligation we feel for the noble efforts which they have made to raise the whole subject from the low state in which it had come to be considered, to its own proper rank and level.

The next division of the volume introduces the *reports of Committees upon Farms.* The first report is by Dr. GEORGE B. LORING, of Salem, one of the most accomplished public speakers and writers of Essex county, and if Madam Rumor is correct, he is just as accomplished in his stout boots, in the furrows, or on the *mowing machine (?)* as he is in the realm of letters. His report is upon farms, is not a dry detail of farm management only, but a running fire of useful thought and happy suggestions, showing all along how deeply he was imbued in his early years with both the prose and poetry of rural life. This report is followed by many statements from proprietors of farms, detailing their particular modes of culture, and giving results, some of which are valuable papers.

There is an excellent paper on "Farm Accounts," by P. N. RICHARDS, of Sunderland. Then follow papers upon "Reclaimed Swamps," "Improvement of Waste Lands," "Orchards," "Manures," "Wire Fences," "Indian Corn," "Wheat," "Rye," "Barley," "Oats," "Broom Corn," "Chinese Sugar Cane," "Root Crops," "Farm Implements," "Neat Stock," "Horses," "Sheep," "Poultry," "Bee Culture," "The Dairy," "Fruits and Flowers," a paper of rare excellence, full of beauty and genial feeling, and what may be of consequence to some, full of information how to coin shining gold. "Vegetables," and "Maple Sugar." A paper upon "*Inquiries in relation to Experimental Farming,*" by WILSON FLAGG, and one upon "*Artificial Planting of Trees,—its Importance and Benefits,*" by Rev. JOHN L. RUSSELL, close the volume. These papers, excellent in themselves, form a fit ending to a volume of so much excellence.

When we have said that a good index to the Secretary's Report, and to the miscellaneous papers that follow, is given, we have only to add that we close the volume with feelings of sincere gratification and pride.

HOW MUCH HORSES FEEL.

Mr. Rowell relates some horrible cases in which horses had broken their bones at the fetlock joint and were compelled to walk upon their stumps, with their fore-feet turned up, as we should turn back our legs to walk upon our knees, and yet continued to graze quietly till they were dispatched. But assuming the particulars to be accurately reported, and they did not fall under the observation of Mr. Rowell himself, we attach little importance to them. He acknowledges that horses are keenly alive to the stroke of the whip, the prick of the spur, and the sting of an insect. That they are peculiarly sensitive to lameness is also a matter of every-day experience. They groan when they are wounded on the field of battle, and by their looks and their restlessness betray great uneasiness when the lacerated flesh begins to inflame. The absence of pain in particular instances of extensive injury can only be temporary, in the same way that the soldier is often unconscious for a time that his arm has been shot off, or a ball been lodged in his body. The numbness which appears to be produced by the concussion passes away, and the sensitiveness is to be judged by the suffering which ensues at a subsequent stage. Horses, no doubt, feel less then men, but they feel a great deal. It is impossible, however, to gauge with precision the degree of anguish which is allotted to each grade of animal life. There are circumstances in every case which must be experienced to be understood, and to estimate truly the condition of worms or quadrupeds, we must become worms and quadrupeds ourselves.—*London Quarterly Review.*

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FOWL MEADOW, OR FALSE REDTOP.

1. Spikelet, magnified. 2. Flower. 3. Germ.

Some months since we gave an engraving and description of the "*Orchard Grass*," intending at that time to introduce other varieties of the Grasses from time to time, as opportunity and space would permit. We now have the pleasure of presenting the reader with a beautiful illustration of one of the finest and best grasses of New England, the *Fowl Meadow, or False Redtop Grass.* We copy the description from FLINT's Work on the "GRASSES AND FORAGE PLANTS," recently published.

The specific characteristics of this species are two to four, sometimes five, flowered spikelets, oval, spear shaped, ligules elongated, flowers acutish, green, often tinged with purple, roots slightly creeping; wet meadows and banks of streams, very common. Flowers in July and August. In long continued moist weather the lower joints send up flowering stems. The panicle is erect and spreading when in flower, but more contracted and drooping when ripe. It is perennial. Native of Germany.

It early commended itself to the attention of farmers, for Jared Eliot, writing in 1749, says of it: "There are two sorts of grass which are natives of the country, which I would recommend, —these are Herds-grass, (known in Pennsylvania by the name of Timothy-grass,) the other is Fowl Meadow, sometimes called Duck-grass, and sometimes *Swamp-wire Grass.* It is said that Herds-grass was first found in a swamp in Piscataqua, by one Herd, who propagated the same; that Fowl Meadow-grass was brought into a poor piece of meadow in Dedham, by ducks and other wild water-fowl, and therefore called by such an odd name. It is supposed to be brought into the meadows at Hartford by the annual floods, and called there Swamp-wire grass. Of these two sorts of natural grass, the fowl-grass is much the best; it grows tall and thick, makes a more soft and pliable hay than Herds-grass, and consequently will be more fit for pressing, in order to ship off with our horses; besides it is a good grass, not in abundance inferior to English grass. It yields a good burden, three loads to the acre. It must be sowed in low, moist land. This grass has another good quality, which renders it very valuable in a country where help is so much wanting; it will not spoil or suffer, although it stand beyond the common times for mowing. Clover will be lost, in a great measure, if it be not cut in the proper season. Spear-grass, commonly called English grass, if it stands too long, will be little better than rye straw; if this outstand the time, it is best to let it stand till there comes up a second growth, and then it will do tolerably well; but this fowl-grass may be mowed any time from July to October. * * * This I wondered at, but viewing some of it attentively, I think I have found the reason of it. When it is grown about three foot high it then falls down, but doth not rot like other grass when lodged; in a little time after it is thus fallen down, at every joint it puts forth a new branch; now to maintain this young brood of suckers there must be a plentiful course of sap conveyed up through the main stem or straw; by this means the grass is kept green and fit for mowing all this long period."

This grass grows abundantly in almost every part of New England, especially where it has been introduced and cultivated in suitable ground, such as the borders of rivers and intervals occasionally overflowed. It will not endure to be long covered with water, especially in warm weather. It is well to let a piece go to seed, save the seed and scatter it over low lands. It makes an excellent grass for oxen, cows and sheep, but is thought to be rather fine for horses. It never grows so coarse or hard but that the stalk is sweet and tender and eaten without waste. It is very easily made into hay, and is more nutritive, according to Sinclair, than either foxtail, orchard grass, or tall meadow oat grass. Owing to its constantly sending flowering stems, the grass of the lattermath contains more nutritive matter than the first crop at the time of flowering, hence the names *fertilis* and *serotina*, fertile and late flowering meadow grass. It thrives best when mixed with other grasses, and deserves a place in all mixtures for rich moist pastures.

COOLING ROOMS.

The warm weather will shortly be here, and every one will be seeking the refreshing influence of a cool and shady place, whereunto they can retreat from the blazing sun; so we will give our readers a few hints concerning the cooling of their houses. The first necessity is a thorough draft. This can always be obtained by opening every door and window in the basement, the top of every window above, and by throwing each door wide open; but above all, be sure that the trap door in the roof is open, and there is plenty of air room from it down the stairs, so that whatever be the direction of the wind, there will at least be one ascending current of air in the house. Another requisite is shade. Our common slat shutters answer well for the windows, but the cheapest and most convenient shelter for the roof is to cover it thickly with straw, dried reeds, or rushes. These will resist the influence of the noonday sun, and keep the garret almost as cool as the basement. One of the most simple methods, and at the same time the cheapest means of artificially lowering the temperature of a room, is to wet a cloth of any size, the larger the better, and suspend it in the place you want cooled; let the room be well ventilated, and the temperature will sink from ten to twenty degrees in less than half an hour.

The above hints will be useful to many, and as a last suggestion we will inform the reader that, in summer, it is well to keep a solution of chloride of lime in the house, and occasionally sprinkle it in the more frequented parts, as the passages and stairs.—*Scientific American.*

BRIGHT BOY.—Not long since some ladies walking in the garden of an eminent divine, who has been classed among the transcendentalists, saw his little boy scraping up the path with an old table spoon. "What are you doing, my little boy?" inquired one of the ladies. "O," said the young offshoot of transcendentalism, "I'm digging after the Infinite."—*N. Y. Post.*

For the New England Farmer.

BEE CULTURE.

MR. EDITOR:—During the last summer, I sent you a few short articles on the above subject, which you had the kindness to publish. It was my intention at that time to continue the subject until I had gone through with all its departments. But quite a number of experienced apiarists, to whose judgment I defer, took up the pen, and cast "your humble servant" quite in the shade. When I have grown wiser in the business, I may resume. My present object is to call the attention of the readers of the *New England Farmer* to their bees, if they have any. "The winter is over and gone, and the singing of birds has come," and a little attention bestowed upon your bees *now*, will pay a handsome return when the honey harvest is over.

Last fall, when putting my bees in their winter quarters, I tried Mr. Quinby's plan—that is, I put my hives in a cool, snug, dark room, well ventilated, and turned the hives bottom up, and kept them so until a few weeks ago. That winter management is good, which preserves your bees and brings them to spring in a sound and healthy condition, and not greatly reduced in numbers. I cannot say but my swarms have come out well this spring; they did, with one exception, and probably I lost that by some experiments which I subjected them to. Still, I do not like the Quinby plan of turning the hives bottom up. There is no mistake but by so doing you get rid of the *moisture* generated by the breath of the bees. I examined my hives a number of times during the coldest weather, and never saw *any* moisture in or about the hive. But this moisture can be got rid of equally as well in another way, and not be liable to the objection which the "bottom up" plan has; by this treatment, all the filth and dirt of the bees, dead bees and all, is retained in the hive, and I found it almost impossible to clean them so as to make them fit to be seen. Mine were all chamber hives, which must be more favorable for the "bottom up" plan, than with hives without a chamber.

Now my hand is in, let me say a word about hives. I have four different *patents* in operation, but I have about come to the conclusion that between "Patent Bee Hives"—*moth proof* included—and "Humbug," there is no great difference. If you have a hive like Bevan's cross-bar hive, with a chamber to it, and the lower part, or living room, about twelve inches square, thoroughly made and painted white, don't spend your money, thinking to get any thing better. During the past few weeks of pleasant weather, those who have taken notice have found their bees hard at work, coming in from the fields with their baskets loaded down with pollen. Of course your hives are on their stand, and have been these three weeks. See that your hives are thoroughly cleaned, particularly the bottom, and all filth removed from every part. This saves your bees a very hard job. You have also weighed your hives, or by some other means satisfied yourself that they have plenty of *stores* to carry them safely into the honey season; if they are deficient, supply them at once. Every few days, I put in the outer channels of the chamber, two tablespoonfuls of honey, and let it run where it pleases. This "*strikes* the fancy" of the bees, makes them bestir themselves, and is said to promote early swarming.

During the middle of the day, just pass around among your hives and see that there is no robbing going on, and bees are more prone to rob each other at. this season and in the fall than at any other time. I take the precaution to contract the entrance to all my hives to one inch, and keep it so until the weather becomes quite warm. If the farmer wants a good crop he must use the means to produce one; if he does this, nothing will prevent its coming, but "the hand of God." So in bee-culture, they must have the care and attention of the master; it is not much they need, but this *little* they must have, or there is no success; with it, nothing pays better in the whole range of the farm of the same cost.

Now, friends of the bee, just give them this care for a few weeks, and then they will care for themselves. I am often inquired of as to the price of a swarm of bees, including a good hive. I don't know. I have always sold mine in the spring, about this time, for ten dollars; never have sold any without a hive, but should suppose six to eight dollars a fair price. NORFOLK.

King Oak Hill, April, 1858.

THE TROUT.

In some remarks made before the Farmers' Club in New York, by Robert L. Pell, Esq., we find the following interesting information concerning this highly esteemed fish:

"The trout is the only fish that comes in and goes out of season with the deer; he grows rapidly, and dies early after reaching his full growth. The female spawns in October—at a different time from nearly all other fish; after which both male and female become lean, weak and unwholsome eating, and, if examined closely, will be found covered with a species of clove-shaped insects, which appear to suck their substance from them; and they continue sick until warm weather, when they rub the insects off on the gravel, and immediately grow strong. The female is the best for the table. She may be known by her small head and deep body. Fish are always in season when their heads are so small as to be disproportioned to the size of their body. The trout is less oily and rich than the salmon; the female is much brighter and more beautiful than the male; they swim rapidly, and often leap, like the salmon, to a great height when ascending streams. When I first stocked my trout-pond, I placed 1500 in it, and was accustomed to feed them with angle-worms, rose-bugs, crickets, grasshoppers, &c., which they attacked with great voracity, to the amusement of those looking on. They grow much more rapidly in ponds than in their native streams, from the fact that they are better fed, and not compelled to exercise. Trout are the only fish known to me that possess a voice, which is perceived by pressing them, when they emit a murmuring sound, and tremble all over."

Insect Depredations.

CURCULIO.—Mr. Walker of Kentucky, through the Ohio *Valley Farmer*, suggests the following remedy:—"As soon as the fruit is attacked take a tin-pan, into which soap-suds has been placed

to the depth of an inch or two; place it in the tree and place a small glass globe lamp in the middle of the pan, which permit to burn all night. In darting towards the light, the curculios strike the glass, and are precipitated into the liquid, from which they are unable to extricate themselves."

For the New England Farmer.

"RAISING CANE."

MR. EDITOR:—If you are not already weary of the accounts of cane-raising experience, I should be glad to give you the result of my own experiments. You know we read the newspapers here. Well, last winter there came to us from the north, east and south, such glowing descriptions of the results of Sorghum-raising that our little village was thrown into quite an excitement upon the matter. One gentleman procured a good deal of seed from Washington and distributed it, and others sent to Boston and bought it in larger quantities. The price of sugar and molasses were daily on the rise, till we began to fear that pies and cake would be reminiscences, not present realities; besides, the Yankee spirit of independence was up, and we were ripe for a trial. Now, just as Spring came on, I had a piece of land given to me for cultivation if I wished so to use it. There was a quarter of an acre. So enthusiastic had I become from much reading of Sorghum reports that I would gladly have filled all my space with the seed. But having never held the plow or hoed corn, I could not cultivate my land in person, and felt troubled as to how my pantry was to be supplied with syrup. Fortunately we have a neighbor, a staid, worthy deacon, who thoroughly understands farming, and when I told him about my land he kindly offered to "take it to the halves," as we call it here in the country. Now this pleased me very much, but how in the world should I manage about my "*Sorghum Saccharatum?* I had a strong suspicion that the deacon would laugh at "hobbies" and "newspaper farming," and it was therefore with a very modest manner that I said, "Deacon, I should like very well to try a little of the new sugar cane."

"Yes, yes," said he, "so should I; I have read a great deal about it in the papers, and 'sugar has ris' so much that it will be quite an object if we can make some ourselves." Unfortunately, as I then thought, potatoes, too, "had ris," and in the Deacon's judgment it would be well to raise a few bushels and a little corn.

We consented, at the same time thinking how nice it would be if we could have it all in sugar cane. "Sugar cane" on our New England soil! How it would remind us of the sunny tropics. But with a wonderful degree of reticence we limited ourselves to two hundred and thirty-four hills of the sorghum.

Time passed—corn and potatoes grew apace, while the sugar cane plants looked like poor sickly little foreigners, in an uncongenial clime. Our manure was guano and hen manure. In a few weeks, however, the sugar cane began to "pick up," and look around, as if astonished to find such a hot sun in our skies; it grew apace, leaving its country cousin, the Indian corn, quite in the shade. And now, indeed, we rejoiced in our goodly crop, and the Deacon would sometimes come by five o'clock in a summer morning and smack his lips in anticipation of the sweet juices that were maturing in the rapidly growing cane. Why, Mr. Editor, you could almost *hear* it grow, as to *seeing* there was no mistake. The Deacon counted the stalks, and calculated three half-pints of juice to every hill. He now took little heed of corn and potatoes—they were old acquaintances, and forsaken for our more showy stranger.

When Autumn came, as good luck would have it, a neighbor who lived on the river a short distance from the village, constructed a small mill, consisting of two horizontal iron rollers for crushing the cane, and two feeding rollers. Near this he put up a boiler for preparing the syrup. I wish, Mr. Editor, you could have gone with me to "Uncle Noah's," in syrup time. You would have enjoyed it. He is a wide-awake man, dead-set against all tyranny, from that of the Russian Czar down to our birch-loving district school master. It would disturb him to see a woman vote, and if he was town lister, would have no desire to assess a tax upon the small, hardly-earned property of a widow or maiden lady. No, he firmly believes that taxation and representation should go together. He says that with all the new spectacles he can procure he can't read the Declaration of Independence in any other way than that all men have a right to life, liberty and pursuit of happiness, and he is so stupid that he don't know what Mr. Choate means by "glittering generalities," for to him they are plain truths. It would have pleased you to see him crushing the cane.

He was to take our cane and manufacture it for one-half of the syrup. We had seventy gallons of juice, but from these seventy gallons we obtained but seven gallons of syrup. There came a sudden, early frost, which injured the cane so that we thought it would not yield so much saccharine matter.

You will perceive that our share from the 234 hills was three and a half gallons. Now the deacon had to strip the leaves from all the stalks before they could be crushed, and the frost had made them adhere closer, and increased the labor. Then there was the expense of transportation to and from the mill, all of which brought up our three and a half gallons of syrup to quite a respectable price. At last it was completed, and the decaon tasted—we tasted, the children tasted, and one looked at the other, then we tasted again, then a silence. I wanted to say it was good, but I couldn't tell a lie. The deacon finally said he liked it, and he thought the more one ate of it, the better they would like it. We tried the experiment, and kept a tumbler of it near us through the day, and occasionally tasted as we have seen old women do with herb tea, but our palates were inexorable; we could not like it, and finally we told the deacon if he would take the whole for the labor of preparing the stalks and the expense of transporting them to the mill, we would conclude the bargain. He assented, and we thought he had the hardest share, if he was to eat the syrup. So you see, Mr. Editor, we furnished land, seed and manure—and learned wisdom. I ought to add that our Indian corn was good, and ripened very well, notwith-

standing the wetness of the season. The potatoes were very fine, mealy and delicious, with no symptoms of disease. These good old friends were true to us, and if I farm it again, I shall cultivate their acquaintance more closely.

We used to scold a little, Mr. Editor, because you were not more sanguine about the results of Sorghum, and thought your cautiousness very largely developed. A. E. P.

Springfield, Vt., 1858.

REMARKS.—We yielded a good deal of space last year for a fair discussion of the merits of the Chinese sugar cane, advised our friends to try it in a small way, and have more recently given many accounts of results in various quarters,—and the conclusion we have come to is this:—When molasses is 75 cents a gallon in the winter or early spring, and the prospect is strong that it will remain so, it will be wise for those who have light, early land, to cultivate the cane.

We give the above article because the story is so pleasantly told, and because its results are probably those of nine cases in ten wherever the trial was made in New England. We do not care to occupy much more space in our columns on this subject, at present.

For the New England Farmer.

PEARS ON THE QUINCE AND APPLE.

"Where is the benefit of thus cultivating?" asks your correspondent "Essex," considering the trees are to be set so deep that roots may start anew from the pear stock. As quince roots will cause an earlier bearing, and continue to bear during the development of pear roots, we ultimately get pear trees on their own permanent roots, which have borne from the time they were three or four years old—which is not the case with original pear stocks.

But "why not graft on the apple stock?" further inquires your correspondent. The affinity between the pear and apple is not so close as between the pear and the quince;- and although the pear takes well on the apple, it is *very short lived*—much shorter than when on the quince, under the most unfavorable circumstances. Perhaps if the pear were grafted low on the apple for the purpose of re-rooting, it might not live to accomplish it—though I have heard of one person who has tried it with some degree of success. A few years ago I grafted about a dozen of young apple stocks with the pear, about a foot from the ground. Though growing well for a year or so, they soon died, and only the Jargonelle bore one early specimen, and then also perished. I have since grafted some apple stocks close to the ground, to ascertain if they can be easily re-rooted. I have heard that fine specimens of the Seckle pear have been grown on the standard apple tree; it is thought, however, that this is an anomaly. Perhaps most any pear might be made to bear a few fruit on a bearing apple tree, as the union need not last long to effect it. Some one exhibited, during the last autumn, at the Massachusetts Horticultural Society, a very handsome Flemish Beauty pear, grown on the apple. Such unions being short, are not profitable.

I confess I have some sympathy with "Essex" in his implied distrust of the "little quince." Where, however, persons are planting a fruit garden, they are generally impatient to see their pear trees bear. In such cases, it would be well to set a few on the quince, being careful to plant them in a rich soil two or three inches below the junction.

Query.—As the pear will grow on the quince, the quince will probably grow on the pear. Has any one tried this on a standard pear? If the union would last any length of time, it might be advisable, as the quince-borer would be avoided, and the trees would present a full, weeping top.

W. Medford, April, 1858. D. W. L.

For the New England Farmer.

HOW THEY FEED THEIR CROPS IN MARBLEHEAD.

MR. EDITOR:—As some of your readers may like to know what we call high farming down our way, I send the following "table of contents" of several heaps of compost on the farm of Mr. SETH HATHAWAY, of this town. These masses of manure were fourteen in number, having a diameter of from ten to thirty feet, with an average depth of about four feet, and were all designed to be applied to between fourteen and fifteen acres of tillage, devoted mostly to onions and cabbages. Contents, viz.:

Glue manure	30 cords.
Night soil	28 cords.
Rotten kelp (sea manure)	10 cords.
Beech sand	10 to 12 cords.
Muck and surface soil	14 to 16 cords.
Lime grounds,—being the sediment—remaining in the pots in which skins are prepared for the manufacturing of glue	11 cords.
Bone manure	6 to 8 cords.
Waste onions, which did not fully bottom last year	250 barrels.

With such data before them, I think some of your readers may cease to wonder at the mammoth cabbages, onions, and other vegetables which have made Marblehead famous in Boston market, and made the names of her handful of farmers occur so frequently as successful competitors in the reports of the Essex County Agricultural Society. * * Mr. H. works up and combines his glue manure most thoroughly and minutely with composting materials, and in this state, considering its strength and durability, estimates it at nearly double the value of barn manure; yet his father-in-law, a glue manufacturer, informs me that within three years he has had difficulty in disposing of it to farmers at $2 per cord! I intend to keep my eye on Mr. Hathaway's acre, and, perhaps, by-and-bye, may report how such manuring pays. Whatever returns she may make him, we will all agree that he does not design to cheat mother Earth.

Marblehead, Mass. J. J. H. GREGORY.

CHALK FOR WARTS.—A correspondent—W. H. Bennett, of Warwick, R I., informs us that by rubbing chalk frequently on warts, they will disappear. In several instances known to him in which this simple remedy was tried, it proved successful. We have known slightly moistened pearl-ash to remove warts by rubbing it upon them.—*Scientific American.*

SEEDTIME AND HARVEST

BY J. G. WHITTIER.

As o'er his furrowed fields which lie
Beneath a coldly-dropping sky,
Yet chill with winter's melted snow,
The husbandman goes forth to sow;

Thus, Freedom, on the bitter blast
The ventures of thy seed we cast,
And trust to warmer sun and rain,
To swell the germ, and fill the grain.

Who calls thy glorious service hard?
Who deems it not its own reward?
Who, for its trials, counts it less
A cause of praise and thankfulness?

It may not be our lot to wield
The sickle in the ripened field;
Nor ours to hear, on summer eves,
The reaper's song among the sheaves;

Yet where our duty's task is wrought
In unison with God's great thought,
The near and future blend in one,
And whatsoe'er is willed is done!

And ours the grateful service whence
Comes, day by day, the recompense:
The hope, the trust, the purpose stayed,
The fountain and the noonday shade.

And were this life the utmost span,
The only end and aim of man,
Better the toil of fields like these
Than waking dream and slothful ease.

But life, though falling like our grain,
Like that revives and springs again;
And, early called, how blest are they
Who wait in heaven their harvest day!

SUGGESTIONS ABOUT HAYMAKING.

Some things I know, and others I should like to know. I know that this life is too short to learn everything that a farmer should know by actual experiment; therefore it is necessary to profit by the experience of others by reading. I would therefore recommend that every farmer who can should take and read the *Country Gentleman* or *Cultivator*, and as many other agricultural papers as he pleases. I think it pays well. Knowledge and Industry are what elevate the farmer, or one man above another. I know that horses and cattle like early cut hay better than that which is cut late. They will fatten on it by giving them what they will eat, while they will barely subsist on that which gets dead ripe before it is cut. Cows which go to pasture early in the spring will make yellow butter, and so they will in winter if fed on early cut hay, if it be well cured. It is more work to make hay of early cut grass, than that which stands and dries up before being cut. It is an old adage, "to make hay while the sun shines." I think hay dried in the shade, is more fragrant and better than if dried in the sun. But in haying time we are in haste to dry it as soon as possible, and get it into the barn out of the way of the rain. I have noticed that women who have occasion to gather herbs for winter use, usually gather them when in blossom, and dry them in the shade. I believe it is correct. If it be so with herbs, is it not so with grass? I don't know which will pay best—to cut meadows once or twice the same season. I think it will be better to cut twice; and I think the quantity will be as much or more on the right kind of land, if cut twice the same season. I do not know but grass would be more likely to kill or die out, if cut twice a year; think it would; but would it not pay to reseed it every two or three years?

I wish you would persuade John Doe or Richard Roe, or some of those big farmers who own a hay-scale, to take, say two acres of meadow ground, cut one acre early so as to cut it twice the same season, and the other acre to cut but once, and weigh it in and weigh it out again on feeding, and feed it to two steers or cattle of nearly equal size, and weigh them every few days, so as to determine which is the most economical plan, or which will pay the best. I should like to see the result of such an experiment in the *Country Gentleman.—Country Gentleman.*

For the New England Farmer.

LETTER FROM MR. FRENCH.

THE ALPS AND GLACIERS.

My Dear Brown:—On the 12th day of August, at about six o'clock in the morning, my three Canadian friends and I, on our mules, and with a liberal supply of guides and mule-drivers, left Martigny to cross the Alps by the Tete Noir pass to Chamouni, in Sardinia. It is called a ten hours' ride, for nobody in these countries has any other idea of distance than by the time occupied in travelling. The morning was clear and warm, and as we wound along in single file up the narrow path, we often turned to gaze with admiration at the picturesque valley of the Rhone which stretched many leagues away behind us, and at the snowy mountain peaks which lifted their heads in the far distance.

Soon, however, the winding pathway led us among the high hills, and amidst forest trees which shut out all prospect in the rear, and overtaking a party consisting of an English gentleman and his wife and sister, and an American clergyman, we were soon mingled in one party, sometimes walking down the hills too steep for comfort or safety, sometimes conversing at the top of our voices, as we filed along on our mules, and so making the most of our new acquaintances, till we reached the Barberine house, a little more than half way, where we left our mules and proceeded on foot.

We soon caught our first glimpse of Mont Blanc, towering up clear and white in the sunlight, magnificent in the distance. Then we came close down upon the Argentine glacier, sloping quite into the valley, in the gorge of the mountains, a strangely grand sight, of a field of snow and ice, extending for miles from the regions of perpetual snow, like a frozen river of a mile or two in width, down to where the wheat and oats were ripening in the August sultry sun.

After dinner at Chamouni, at the London Ho-

tel, over which the American and English flags were waving to attract just such patriots as ourselves, we walked up to the small church and into the fields, and sat down upon the grass, and watched the sunlight on the mountain peaks, glistening like silver with rainbow hues, as the shadows from the valleys crept softly up the hillsides. There was no cloud or mist around the lofty peaks, and one by one the twilight cast her mantle over them, till the brightness of all was dimmed, except one distant lofty summit which before had seemed no higher than the rest, but now we saw, as the sunlight still glanced from this, when all the rest of the world had sunk into shade, that Mont Blanc, with his glorious forehead bathed in light, looked down on all around him. Next day was clear and bright, and, as I watched the sunrise on the mountains which rise almost like a wall on the east of the valley of Chamouni, every wave of the ocean of snow which covers them was plainly visible. We took an early start on foot up Mt. Anvert, by a steep and crooked path, and there at about three thousand feet elevation above the valley, and eight thousand above the ocean level, we looked down upon the famous Mer de Glace. This is one of the glaciers, and here about three miles above the lower end of it we crossed to the other side upon the ice. The passage did not seem to me either difficult or dangerous, though some of our party availed themselves constantly of the helping hand of the guides to steady their steps.

It is a rough river of ice of about half a mile in width, not smooth, like ice formed where it lies, but rough and broken, as if a sea of ice of many feet in thickness had been broken up by a torrent and swept down from above, till it was jammed into the mountain pass in a perfect chaos of confusion. The guides have small flags posted up at intervals to indicate a safe pathway, and they carry hatchets with which they cut notches in the large masses of ice over which we climbed.

We passed close by large fissures where the masses of ice were separated, which appeared to be fifty feet in depth, and across narrow passes as if on huge cakes of ice set on edge. Stones and earth are in places mingled with the ice, and all this seems to substantiate the theory that these glaciers are formed by avalanches of snow and ice which slide from the higher peaks of the mountains.

Slowly, but surely, the whole mass slides down into the valley, where, at the end of the glacier, which juts out like a tongue between the green fields and pastures which almost touch its sides, a river of roaring, foaming water constantly rushes from beneath it. It is, as I have said, about three miles from where we crossed to the lower end of the glacier. Occasionally a guide or traveller falls into the deep fissures in the ice in crossing, and they say that it takes about forty years for those unfortunate individuals to make the passage out at the lower end, showing that the glacier moves at about the speed of three miles in that period of time. We were solemnly assured that there are three guides now on the passage, and that one of them is anxiously looked for every year by his posterity, and expected to come out in as good a state of preservation as the elephant that was found in Siberia, frozen up probably before the time of Noah.

After crossing the ice, we walked down on the other side, climbing along by the side of a perpendicular precipice, holding by a rope fastened with staples to the rock, for many rods, looking down all the way upon the glacier at our feet. The day was hot, and large masses of ice were constantly falling as the water beneath loosened the foundation, and occasionally a crash like the report of a field-piece, told that a great mass of ice had fallen off from the end of the glacier, which seems to stand some fifty feet high, and to preserve, by some means, a square wall at its termination. All through the day we had fine views of the mountains, and at night arrived at our hotel, after a rough walk of twenty miles, with less feeling of fatigue than a quarter of that distance gave us in our early attempts at pedestrianism.

The agriculture of this valley is not extensive. Crops of wheat and oats were growing in the narrow plains in the valleys. Flocks of she-goats, each with a bell on her neck, were driven at night home to the village to be milked. High up on the mountains we could see little villages of small cottages, where a few cows and goats are kept. Even in the midst of the mountain passes, where nothing but a mule can travel, there were away up above our path, houses and attempts at fields of grain. The hunters shoot chamois and some other kinds of mountain goats or deer. Where there are wider valleys, grapes are grown on the sunny slopes, but on the whole, the region about Chamouni is barren and desolate, and the inhabitants subsist mainly by the expenditures of travellers who are attracted thither by the wild beauty of the scenery. From Chamouni we took post-horses to Geneva, a long but pleasant day's ride of nearly fifty miles.

The scenery is picturesque and grand through most of the route, with fine views backward of Mont Blanc. We dined at Bonneville, and then journeyed on through a pleasant Rhine-like vine land down the river Arve till we reached the elegant aristocratic city of Geneva. Here again we seemed to have found one of those cities peculiar to continental Europe, devoted, like Brussels and Paris, to luxury and elegant amusement. Beauti-

ful walks among trees and fountains and statues ornament the shores of the lake in front of the stately and palace-like hotels. In the evening, bands of music surrounded by parties of elegantly dressed ladies and gentlemen, were performing in a garden by one of the bridges, while graceful pleasure boats were gliding from point to point on the lake. This, however, is but the outside impression of Geneva, a city famed for its devotion to science and learning as well as the arts, and famous as the residence of Calvin, and as the head-quarters of the Puritans.

In a former letter written at Lyons, I have hastily sketched my journeyings to that city, and if in this or others of my letters, repetitions or omissions are noticed, it should be borne in mind, that what I have written abroad has been in haste, and almost on the wing, and that no copies have been kept. The freshness of a first impression has seemed to me of more interest than a more careful narrative from notes or revised correspondence. H. F. F.

For the New England Farmer.

BUCKWHEAT BRAN AND STRAW—OX-YOKES.

MR. BROWN:—I wish to know if there is any virtue in buckwheat bran? I have fed it mixed with oats, to horses, putting in about twelve quarts of bran to one bushel of oats, and am confident that it has been injurious to the animals; had I fed the oats clear, I have no doubt the same quantity would have put the horses in better condition.

I have heard it remarked that buckwheat straw used as bedding for hogs would eventually cause their death. Is it so?

I would like to inquire what is the best kind of a yoke for oxen to work in, i. e., a long or a short one? I am told by one they will work the best and draw the most in a short yoke; another says the reverse. My opinion is that it depends upon circumstances; if a pair of cattle are equal in strength to each other, they will work to the best advantage in a long yoke. In matching cattle, the weight of each should be ascertained; this is the most essential point. Supposing their horns are not exactly alike, or one may be a little darker red than the other, what matter is it? If they are equal to each other in weight, they are apt to be equal in strength, and if they are equal in strength, when working in a long yoke, one will not be constantly behind the other, or crowding against the tongue. If they are not matched in this manner, it ought not to be said they are well matched. If you desire to work them in a long yoke, give the weak one the advantage, by placing him farther from the tongue, which can be done by boring the hole in the yoke farther from the centre. It is best, however, to give such cattle a short yoke.

Orwell, Vt., 1858. EDMUND H. BENSON.

REMARKS.—Buckwheat bran, we understand, is nearly valueless as food. It is a hard, shelly substance, and rattles like a "pocket of walnuts," when shaken.

We can see no reason why lying upon buckwheat straw should be hurtful to swine.

Your remarks upon matching cattle and fitting yokes are valuable. Those subjects need more attention.

TOMATOES—SUPPORTING AND SHORTENING-IN.

Few gardens are now found unsupplied with tomatoes, but very few persons take pains to *cultivate* them. The vines are usually left to straggle *ad libitum*. This is both bad economy and bad taste. If tomatoes are planted in rows, a convenient plan is to put up stakes on both sides of each row, and nail on horizontal strips or slats to keep the vines perpendicular. They may be carried up to the height of three to five feet. By this means the vines will show much better, especially when covered with ripened fruit clustering thickly upon the sides. The fruit itself will be much superior to that matured on the ground and in the shade. Strong twine or wires may be substituted for the horizontal slats. A cheaper process of supporting tomatoes is to bush them, in the same manner that beans or peas are treated. Our own tomatoes are planted around the border of the garden, and trained upon the fence, the vines being upheld by strips of leather, doubled around the stalks and fastened to the fence with small nails.

Tomatoes are also benefited by *shortening-in*. Three-fourths of the mature fruit is produced upon a small part of the vine nearest to the root, say one-third or one-fourth of its length. It is recommended to stop the further development of vines after a fair supply of fruit is set, by clipping off the vines growing beyond. The clipping should not be carried too far, as a supply of foliage is required to gather food from the air. One of the most successful cultivators in our acquaintance made it a rule to let no vine extend beyond four feet from its root.—*Am. Agriculturist.*

BLASTING STUMPS.

The *Ohio Cultivator* relates the experience of W. A. Gill, of Columbus, Ohio, in clearing a field of stumps by gunpowder, which really appears to be a most powerful "stump extractor." He cleared a stumpy field of twenty acres cheaply and expeditiously, the following plan being pursued for each stump:

"Select a solid place in a large root, near the ground, and with an inch and a quarter augur bore in, slanting downward, to as near the heart of the base of the tap-root as you can judge; then put in a charge of one or two ounces of powder, with a safety fuse, and tamp in dry clay or ordinary tamping material, to fill the hole, some six inches above the charge; then touch fire to the fuse and get out of the way. The blast will usually split the stump into three pieces, and make it hop right out of the ground. If the charge is put in too high up, the blast will only split the top of the stump, without lifting it."

For the New England Farmer.

HOW FRIEND OLIVER RAISES PORKERS.

"Oliver's the hand to raise hogs," says Uncle Tom; "it does beat all natur how he will make the critters grow!" Holloa! Oliver, said I, is that so? Come, then, you must tell us all about it. "You see," said Oliver, "I always buys the mangiest, scouriest thing you ever did see, and yet I always gets a good pig out of him. When a drover comes along with a poor, weak, thin, sickly critter in his lot and I gets my eyes on him, why, I generally gets him at a bargain, and I soon sets him going towards being a fat porker. Now there's Mason, he had a poor, sick hog that had the scours as dreadfully as ever you did see; my conscience! there wasn't anything left of him! Well, you see, I went to Mason to know what he would take for him, but he was so awfully used up that he said he wouldn't sell him at no rate. So I gets him to bring him down to my place for a dollar, and goes to work on him. I goes up in the pastures and gets some hardhack and makes a strong tea of it, and pours it down his throat, and I didn't have to do it but twice before it cured him entirely; and then you had better believe I started him! In a week or two, I sold him to Reuben, and a splendid hog he made.

"Then, again, there's Ben Pritchard; he and I bought hogs out of the same drove; he gave six dollars for his two, and took his pick of the best, and I gave one dollar seventy-five cents for my one, and he was the poorest in the drove; he was as awful looking a critter as ever you seed. Well, Ben he comes over and looks at mine, and says, 'Oliver, why, what under the sun have you got here! I wouldn't take that hog for a gift!' I says nothing, but thinks I to myself, I'll give you a tussle to beat him, my boy, if it's a possible thing. Ben he used to pass by about dinner-time, and so sometimes he'd take a peep at my pig: well, pretty soon he began to stare rather hard. I used to see him, but I says nothing. By-and-by he would stare and stare and scratch his head dreadfully; and one day he says to me, 'plague take it, Oliver, I don't see how under the sun you do that!' 'Do what, Ben,' says I, for you see I pretends as though I didn't know what he meant. 'Why, how do you get that hog to grow so?' 'O, never mind about that, Ben,' said I, 'we'll just wait and see how he comes out.' Well, sir, when I comes to kill my hog, and I killed him ten days before his, mine weighed more than both of his together, and mine was a one dollar seventy-five hog and his two cost six dollars! Now what do you think of that?" I at once acknowledged, with emphasis, that it was a grunter of a story.

Now, Oliver, said I, you must tell us the secret of all this; how can you take the "tag-rag and bobtail" of every drove that comes along, and make such excellent porkers out of them? Now out with the facts, every one of them.

"Well," said friend Oliver, "I'll tell you the whole secret; it's just this: *Taking good care of the critters, and feeding them just what they like, with a little knack at getting as much inside of them as possible.* When I takes a poor critter, I makes it a point first to start him; so I first gives him a good scrubbing, once or twice, and I boils up some sweet corn and milk and feeds to him, or I boils up some hasty-pudding with milk and mixes a little molasses with it; just give them most anything they like best, to give them a start, and when they once gets started I gets inside of them all I can. For instance, I gives them some meal, and when they have eaten all that they will of that, I throw in a few clams or some fish or some waste stuff from the slaughter-house, and they eat that too; so I gets more inside of them, and that's what does the business. You see, get all inside of them you can get them to eat, by giving them something else when they have eaten their fill of one thing. As for making anything out of a hog by giving them meal, meal, meal, everlastingly, I don't believe in it."

Well, Oliver, said I, you have given us some ideas on hog-raising that have stood the test of practical experience; why don't you put your ideas on paper, for the benefit of the community? Why don't you pen them for some agricultural paper? "O!" said Oliver, "I am not used to that sort of business; it doesn't run in my line, you see."

So, Messrs. Editors, as it didn't run in friend Oliver's line to put his report on paper, I have attempted, humbly, to do it for him; and I have a notion that "Uncle Tom" will assent to it as very nearly a literal transcript. J. J. H. G.

Marblehead, Mass.

HOW TO DESTROY BRUSH.

The *Berkshire Culturist* replies as follows to some inquiries in our columns, as to the best method of destroying bushes in pastures:—

"Bush Whacker" may have some peculiarity relative to the location of his pasture and its connection with other lands of the farm which would be important to be known, and which it might have been well to have given. In the ordinary position of such lands we should feel competent to give a practical if not specific answer to the inquiry. It would be something like the following:

In the first place, see that there is a fence which will keep all cattle from breaking into the pasture. In the second place, see that no creatures are turned in. These are the main directions, and if the ground is literally covered with bushes, we care but little of what kind, this is all that is necessary. If there are large spots free from bushes, plow them as well as you can, sometime in the early part of the season, and as soon as the chestnuts, beech-nuts, acorns and other seeds of the forest trees are ripe, plant the spots with the seeds of such trees as are indigenous to the soil. An eye placed upon the neighboring forests, and especially such as are of second growth, will direct what woods it may be expedient to cultivate. Wait patiently twenty-five or thirty years, and you will find your present pests have disappeared, and in their place a wood and timber lot, which will enrich you and your children, and prove a blessing to all the community. If you still persist in making a pasture of it, you can then cut off the timber and sell it for enough to pay for land and interest. Burn the brush, and put on a flock of sheep; feed close two or three years, and you will have a fine, clean pasture.

We never yet saw a piece of stony ground covered with shrubs of any description, but had many young forest trees intermingled. These are often kept browsed down by cattle, but the short time required to make a forest of them is surprising to one who has not given attention to this point. There are many thousands of acres of rough land in this State which ought to be devoted to timber, and of all others—mountain ledges excepted—the old pastures, cold and heavy, full of stone and covered with moss, brakes and useless shrubs, stand first. This is, in our view, the only way in which these lands can ever be restored to fertility. Manuring is out of the question, and the extirpation of shrubs from rough, wet ground is next to impossible, and in the exhausted state of the soil, moss and brakes would soon fill their place were the shrubs destroyed.

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For the New England Farmer.

HOW TO MAKE A GOOD SHINGLE ROOF.

Mr. Editor:—An article on this subject in your November number for 1857, has led me to make the following remarks.

It appears that the writer of that article was a carpenter; I also am a carpenter; have had an experience of over fifty years in making and repairing roofs, and would wish to lay before your readers a few considerations as the result of my long experience.

In the first place, it is important, in order to make a tight shingle roof, that it should have a good pitch; forty-five degrees is none too much when it can conveniently be had; this, in a large building, may be a little too much to look well, but in small buildings more is better, both for looks and utility; it gives opportunity for the water to run off freely, and the roof soon dries. One reason why roofs decay so soon, and become leaky, is their flatness,—they hold the water for a long time; it penetrates the wood, the heat of the sun causes a kind of fermentation, and decomposition takes place, and the life and strength of the wood is soon destroyed.

Shaved shingles I conceive to be better than sawed, for this reason: they are free from that roughness which the sawed shingle possesses, serving as a sponge to hold the water, and causing the shingles to decay, and then the general surface of the shaved shingle is not so level as the sawed, and of course they do not lay down so close to the shingles below, which gives the air free circulation to dry the shingle, which prevents it from rotting.

Another thing in favor of shaved shingles, is, they run with the grain of the wood, and do not so readily absorb the water as the cross-grained, sawed shingles.

It is my opinion that a roof covered with shaved shingles will last a third longer than one covered with sawed shingles made out of the same kind of stuff.

Various methods have been tried to prevent shingles from decaying when laid, but all have not proved alike successful. Smearing over with tar has been tried, but has not succeeded well. Painting roofs after they have been shingled has been tried, but this is really worse than useless. Oiling or painting shingles and drying them before they are laid, is a good way, but is too expensive for common use. A better and much cheaper way is to make use of lime. In the course of my experience and observation on roofs, I have always found that where shingles have come in contact with lime, they are in a much better state of preservation than where they have not been exposed to it; even the small quantity that comes off a whitewashed chimney, in the course of years, will have a surprising effect on the shingles around it. There are three important advantages to be derived from making use of lime on shingles.

The first is, it preserves the shingles in a good degree from moisture. Whoever will take the pains to examine a well whitewashed roof in the morning when the dew is on, will readily see that the moisture does not penetrate through the whitewash, and thus it serves as a shield to prevent the shingles from the decaying effect of wetting and drying, and although it is not a perfect preventive from moisture, yet it, in a good degree, preserves the shingles from that process of wetting and drying to which unprotected shingles are exposed, and which is the great cause of the speedy decay of so many roofs.

Another important advantage from using lime on shingles, is, it fills the pores of the wood with the salts of the lime, which hardens the wood and renders it more impervious to the water.

A third advantage from the use of lime, is, it serves to keep the shingles clean from all impurities, and especially from moss, which so commonly grows on roofs, and which serves as a sponge to hold the water, and prevents the roof from drying.

In order to prepare the shingles for laying, I would observe—take a cistern or long tub, put in about half a bushel of unslaked lime, slake it with warm water, reduce it to the consistency of whitewash, immerse your shingles in the liquid, let them lay about two hours, take them out and cast them promiscously into a pile, let them remain two or three days, and they will be fit for laying. When the shingles are laid, whitewash the whole roof over anew, and you will have a roof that will do good service.

New Hampshire Carpenter.

Derry, N. H., 1858.

DUST.

From whence does it all come? You may sweep your room twice every day, and you will find that a cloud of dust arises every time the broom and the floor make acquaintance. You may dust every article of furniture, every book, every picture; you may take care to shake your duster out of the window, and your own clothes out in the yard; you may wipe all about the book-shelves and the floor with a damp cloth; and yet after all your labor, there will be dust. Dust flying in the air; dust settling on the books and tables; dust on the pictures, on the flowers—dust, dust everywhere. It is discouraging.

You think, perhaps, 'tis because the room in which you sit is so large; you think that if you were in snugger quarters, there would not be much of this annoyance; you, therefore, move into a smaller apartment, but you are worse off now than you were before. You can't turn around

quick, nor even heave a sigh, without setting in motion ten thousand particles of dust. You may sweep till your broom fails, and dust till your arms fall off, and the story will be always the same. Even out at sea, where the good ship rides the billows thousands of miles from land, the dust gathers. It matters not how much the sailors rub the masts and holy-stone the decks, the dust will gather, even amid the salt spray of the sea. It is for ever flying and settling wherever there is any solid substance on which it can alight. Where it comes from is no mystery, when we remember what sort of things we are.

"Dust thou art, and unto dust shalt thou return," is written on clothing, on wood, and iron, and steel just as truly as it is on frail, perishing flesh; and the changing and sifting back to its despised original, is going on before our very eyes, in each thing that we look upon. Constantly—some rapidly, others with a slower waste, but certainly all things are returning whence they came. 'Tis enough to make one fear the dust, to make one feel a horror at the atoms falling on one's garments, and one's limbs, to read and understand their language. That language is all of decay and death; of earth, decay, and worms; of darkness, forgetfulness, and despair. This, if one cannot look beyond the dust, and see, and take hold upon, the eternal life.

How carefully, and purely, should we step through the world, did we but read, as we walk, all that is written for our admonition and warning. But we go hastily, with careless eye and dumb heart, taking little heed when we should be most studious. Many there be who have deep skill to read the dark sayings written on ancient rocks, who yet have never understood the plain language of the gathering dust.

TAXING DOGS TO PRESERVE SHEEP.

FRIEND HARRIS:—We keep two rifles and a doubled barrelled shot gun, and can level them with great precision on a sheep-killing dog, either moving or still, but mischief is most always done first. Our Ring is a very knowing little dog, and lives up to the top notch of his knowledge. He guards the house diligently, and never was inside in his life; we would pay a considerable tax rather than part with him. But he is liable at any time to go mad, and ramble through the neighborhood, leaving death and misery in his train.

What is the reason that sensible men do not view dogs as a dangerous species of property, and tax them accordingly? Instead of having an extra tax put upon them, they are not taxed at all. According to the common rules of taxation, they should be included in the assessor's list, but their dangerous propensities should entitle them to heavier tax. If a dog is loose at night, his owner has no control over him, fences are mere ropes of sand, and whenever mischief calls, he obeys her command.

If the Legislature were to pass a law requiring the owners of dogs to pay one dollar for each, annually, it would diminish the number of dogs, without increasing our taxes. It would only be transferring a small portion of the tax to dog owners, where it justly belongs. No reasonable man would grumble at paying one dollar for a good dog, considering the nature of his property. and a worthless one he would not keep.—MICAJAH T. JOHNSON., *Harrison Co., O.—Ohio Cultivator.*

EXTRACTS AND REPLIES.

CULTURE OF HOPS.

Why do you not give us the prices of hops in your "Review of the Market?" Several in this section are raising hops, and notwithstanding the present low prices, are not discouraged.

What kind of manure is best adapted to them? Are ashes good, and if so how should this be applied; alone, or mixed with manure or compost? How many vines ought to climb the pole? Will some one in the north part of this State, experienced in the business, please give us a lesson? Will it pay to sow salt broadcast on grass ground? If so, how many bushels to the acre? Also, if good for corn, and root crops, how used? Where can I get the King Phillip's corn for planting? A SUBSCRIBER.

Green River, Vt., 1858.

REMARKS.—We can add the price of hops to our price current, if it is desired.

We prefer that some practical producer of hops should reply to the questions relating to that crop.

Five bushels of salt per acre, provided it can be purchased very low, say less than 25 cents a bushel, will undoubtedly be profitable; and would be as much so on corn or root crops, probably.

The King Phillip or Brown corn is usually for sale at the seed stores.

A LARGE BARREN MEADOW.

I have a large barren meadow which nothing but grass will grow on; will you inform me, through your columns, the best way to proceed to get it into English grass.

Barton, Vt., 1858. J. P. ROBINSON.

REMARKS.—Drain it, so that no water shall stand within fifteen inches of the surface; then plow it if you can,—if not, "bog" it with a bog hoe, and plant potatoes one or two years. Then plow, level, manure and sow with grass seed as early in September as you can get off the potatoes. As a general thing, this process will increase the value of such meadows more than four fold. Be quite sure, however, not to take up at once, more than you can reclaim thoroughly, if it be but half an acre. Does not the "barren meadow" look better already?

MILK FOR BUTTER.

Mr. Secretary Johnson states, on the authority of Mr. Holbert, as the result of his inquiries in the great State of New York, (Trans., vol. xi., p. 232,) that it takes *fourteen quarts* of milk, on an average, for the production of a pound of butter. This, he says, is confirmed by the experience of Mr. Horsfall, of England. So much detail is given in confirmation of this statement, that its

correctness is not to be questioned. But such has not been the reports of dairy management in Massachusetts—not to speak of the *four-quart* products of Devon stock, in October. Why this difference? Is it in the animals, the pasture, or the management?

I have long been of the opinion, that our own native stock were as good for butter as any animals whatever, but I did not presume to say they were *twenty-five per cent.* better, which I should do, if the above facts are to be conclusively relied on. ESSEX.

May, 1858.

—

WATER PIPES.

Will you have the kindness to inform me in regard to the best kind of pipe for bringing water to the house for family use, and where it can be obtained? Lead is poison and iron corrodes. Is there any thing better than logs? I believe I have seen an advertisement in the *Farmer*, or some other paper, of a cast iron pipe, lined with glass or cement and covered with the same, so that the iron will not corrode, and the water will remain pure. Is there such a pipe, and is it the thing wanted? If so, where can it be obtained, and what is the probable cost? Any information on this subject will be very gratefully received.

AUSTIN CONSTANTINE.

East Wallingford, Rutland Co., Vt.

REMARKS.—In the country, where logs can be easily obtained and at a cheap rate, we doubt whether anything more economical can be used. There is such pipe made as you speak of, but it would be quite costly compared with logs. Pipe is made of common hydraulic cement, thus; dig the trench, cover the bottom for a length of six or eight feet with cement, then lay a round stick on it of the size of the diameter of the pipe which you desire, and cement over and around it. In a short time the cement will set, then go on as before. But this must be below the frost. Upon the whole, you will be safest with logs from your own hills.

—

TO CONVERT BONES INTO MANURE.

Please tell me the best and cheapest way to convert bones into manure. D. ROBERTS.

North Adams, 1858.

REMARKS.—First break the bones as finely as you can. Then it can be done by covering them six or eight inches thick with unleached ashes, but the process will be a slow one. Take one part sulphuric acid, and *five* parts water, and mix the bones with it. If it does not form a sort of paste in a few days, add a little more acid. The acid is an excellent manure, and costs about three cents a pound, and is a liquid dangerous to handle, and must be used with care.

—

LEAKY COWS AND AFFLICTED HORSES.

Is there any remedy for cows leaking their milk, and if so, what it is? Also, what is the best remedy for sores on horses?

April 20th, 1858. A SUBSCRIBER.

MORE LAND AND LESS PRODUCTS.

I accept the authorities cited by Mr. TOWER, as an explanation for his statements, that while our acres of cultivated grounds within the State of Massachusetts had expanded *one-quarter*, our products had diminished *one-third*. If such has been the progress for eight years last past, it will not be difficult to calculate the time, when our products will be entirely unworthy of notice. I think there must be some error in the statistics. I cannot believe that our cultivators have thus been advancing backwards.

I hope measures will be adopted to mark these things with entire accuracy. It would be easy to require of each agricultural society, enjoying the bounty of the State, a specific return of the products within their limits. Let such returns be made upon the responsibility of the society, and on failing to be made in a satisfactory manner, let their portion of the State bounty be withheld, and all these things would soon be right.

A LOOKER-ON.

REMARKS.—We have no doubt our correspondent is correct in his belief that some "error exists in the statistics." In the first place, we believe that instead of our cultivated acres being expanded *one-quarter*, they have been *contracted* more than that, and that still our products have increased.

We have asked the question of gentlemen from all parts of the State, "*whether as much land is under tillage now as there was twenty years ago*," and the invariable reply is,—"No, we plow less land, but use more manures, and cultivate better; we have learned to find a better profit in allowing our rough pastures to run to wood, and pasture our cattle partly on land that we can plow and manure and re-seed. There is more wood-land than formerly, and less pasture and tillage land."

This accords entirely with our own observations and impressions. We think there is an *error in the statistics*, and wish some person of leisure and patience would take the proper step to correct it.

—

GROWTH OF WOOD FOR FUEL.

In answer to a correspondent who inquired about the best trees to raise for a crop of wood in the shortest time, I would say that the Silver Maple is the quickest growing tree and the easiest to raise of any with which I am acquainted. The River Birch is the next best. The seed of both are ripe about the last of May, or first of June, and should be sown as soon as ripe, and covered very lightly. The seed of the Maple may be found in Nashua hanging over the iron bridge near the Indian Head Company's Mills, and other locations in Tyngsborough, at the farm of D. P. Colburn. The seed of the birch may be had on the Merrimack River at Lowell, above the falls opposite the residence of Abiel Rolfe, Esq., or in Methuen, four miles above Lawrence, near the well-known Bartlett farm. I have raised one year seedlings of both kinds from one to two feet. B. F. CUTTER.

THE HORSE'S TAIL.

MESSRS. EDITORS:—Are not docking, pricking and pullying the horse's tail among the dying barbarisms of the day? Are not wise farmers, bungling jockeys, and fastidious horse fanciers, beginning to think a horse looks better for having a tail? Wonderful discovery all this, after all the persecutions practiced upon the horse. Who has not been in a position to say that decency forbids this mutilation? Could the poor animal remonstrate, he would say, my pride is humbled, my loins are weakened, and robbed of my most useful and becoming appendage, but to the instrument and mallet I must submit.

Why this passion for chopping of tails? Will you, Governor, answer this question? P.

Brooklyn, N. Y.

REMARKS.—We hate all *barbarisms* on humans or anything less. Dr. DADD can best reply, if he will.

—

DRUMHEAD SAVOY CABBAGE.

Can you inform me where seed of the Drumhead Savoy cabbage (the genuine article) can be procured? F. KEITH.

No. Easton, Mass., April 26, 1858.

REMARKS.—We can only refer you to the seedsmen at the agricultural warehouses.

—

A PROLIFIC SOW.

I have a breeding sow which has dropped eighty-six pigs at five litters as follows; April 8, 1856, 17; September 4, 15; April 4, 1857, 16; August 22, 16; April 16, 1858, 22; 64 of these 86 within the short term of 16 months and 14 days. C. P. WARD.

East Poultney, Vt., April, 1858.

For the New England Farmer.

ORNITHOLOGY.

BY S. P. FOWLER.

The Robin (*Turdus migratorious*) is perhaps more generally known in the United States than any of our birds, and has been noticed by travellers and naturalists, from the earliest discovery of the country. Josselyn, in 1663, in his list of singing birds, speaks of Thrushes with red breasts, which are very fat and good meat. Kalm, in his travels in 1748, has given us a rude cut of the Robin, or as he calls it, Red-breasted thrush, and says it is very different from the Robin of England. He says it sings melodiously, is not very shy, and hops on the ground. It was noticed by Dr. Latham, under the name of the Red-breasted thrush in 1783; by Catesby, in his "Natural History" of Carolina, in 1748, where he calls it the Fieldfare; by Jefferson and Bartram, in their catologues of our birds, and by Pennant, in his "Arctic Zoology", in 1785, where he says, at Moose Fort, these birds build their nests, lay their eggs, and hatch their young in fourteen days. Hearne, in his journey to the Northern ocean, says of the Robin, that it is called at Hudson's Bay the Red-bird, and that they are not numerous. Dr. Richardson says the Robin inhabits every part of the fur countries, as high as the 67th parallel, and that it comes in company with the Blue-birds and Grakles in spring, to the shores of the Great Bear lake. Gosse says the Robin is found in Newfoundland, where it is very common, and is always called the Blackbird.

The habits, instincts, and migrations of the Robin are interesting, especially those connected with the rearing of its young. It builds a very substantial nest with great care and labor, erecting its mud wall upon the true principles of masonry, so that it is capable of affording a safe and comfortable domicile for its two or three broods of young, during the season, and withstanding even the storms of the following winter.

How wonderful is the instinct that prompts birds to build their nests in such a variety of forms, and from such different materials. We know not why a Robin should consider its nest unfinished, until it is neatly plastered with mud, and a wild Pigeon content itself with a nest consisting of a slight scaffold of a few dry sticks, carelessly placed upon a limb of a lofty oak, and feel secure in thus rearing its young. Our bird under consideration, in some of its habits, may be considered as truly American, in accomplishing a manifest destiny by its constant increase, and by its filling the whole country and much of its adjoining territory with its species, and also from its constant residence in the Union, only migrating from one part of the country to the other to procure its food, or to avoid the inclemency of the season.

Many of our birds migrate upon the approach of winter beyond the limits of the United States, and are only summer residents, but the Robin can be found in some localities even in Massachusetts, during the whole season. Its marauding inroads upon our gardens, and the impudence with which it partakes of our fruits, has given the bird a bad reputation. This aggressive trait of character which we discover in the Robin and some other birds, they most probably acquired in a considerable degree from ourselves, and may fairly be considered an American propensity, which we have fastened upon them. The Robin is a true thrush, and consequently, its principal food is fruit and small berries and these the wild cherry trees and Vacciniums furnished, until man bought all the fruit of the first mentioned he could procure, to put into his rum, and the latter into his puddings! He having taken unto himself all the indigenous fruits and berries, that are to be found in the forests, swamps and fields, the poor Robins and some other birds, have been compelled by their honest fruit-loving appetites given them by the great Giver of all gifts, to resort to our gardens for a supply of their favorite food, or starve! Well might our birds say to man, if they had the gift of speech, as they have of song, let our indigenous berries, that nature has given us, alone, before you complain of our robbing your gardens of their cultivated fruits!

The form of the Robin is good and symmetrical, but its plumage is not brilliant. Nature gives form, and adapts the parts of birds to their peculiar mode of obtaining a living, and in doing this, frequently in our poor conceptions, destroys their symmetry. But we overlook what we falsely suppose a want of due proportions in the parts of birds, by entertaining the notion that *fine feathers* will alone make fine birds—as, for instance,

the Scarlet Ibis. As the Robin's food can be obtained without much difficulty, no elongation or contraction of its limbs becomes necessary, hence there is more proportion in its parts than is to be found in most birds. The note of our bird is characterized by its honest earnestness, and is always pleasing. Its habits are social, and it is found no where in abundance, except around the habitations of man, where it rears its young, confiding in his protection. We should miss the Robin more than any other bird, should it, from any cause, become rare or extinct, associated as it is from our childhood, with the return of spring, the ripening of the summer fruits, and our shooting days in early autumn. Our rural writers would also regret to lose so fruitful a theme, as the Robin has always furnished. It is a favorite bird with most persons, notwithstanding its propensity to partake unbidden of their choicest fruits. Some, in their great desire to shield their favorite from a charge of shot, have claimed for it the habits of an insectiverous bird, but ornithologists know it does not possess them. Its claims for our protection should come from its confiding, familiar character, its pleasant song, but more especially from the love we cherish for all birds. And if these considerations are not strong enough to prevent our shooting it, let us remember its relationship to its name-sake, Robin Redbreast, of Britain, who so affectionately covered up the dear little babes in the woods with leaves. Surely, the remembrance of this touching and affectionate deed, will save our bird from harm! In the circular groupings of Mr. Swainson's classification, the Robin is distinguished as a true Thrush by the generic name *Merula*, and by Dr. Richardson, in his "Northern Zoology," by the specific name *Merula Migratoria*, and says it is called by the Cree Indians the Peepeechew.

Danvers Port, April 1st, 1858.

For the New England Farmer.

TIGHT TANKS UNDER THE CATTLE.

Mr. Editor:—Being a constant reader and admirer of the *N. E. Farmer*, for its usefulness in directing the husbandman in his daily avocations, and for its independent and fearless expression of opinion on great moral questions, I am glad to offer a few facts for its columns.

Just before haying last summer, we raised a barn, built a substantial cobble-stone wall under the back side and each end, and surmounted it with a good split stone underpinning, making the cellar eight feet deep. After haying we built a water-tight tank forty feet long, twenty feet wide and four feet deep, of the construction of which I will give you a brief description.

Rift granite in our town is quite plenty, of which I obtained a good quality for the purpose. We split them twenty inches wide and laid them two tiers high, after fitting the two edges that came together and squaring the ends. Top of the wall we set the posts to support the barn, and between the posts we fitted permanent eight inch timbers. Where the ground is dry and a sort of hard pan, the cement may be put on to the earth itself, but mine being wet and liable to innundation, we proceeded in the following manner: We made an underdrain to carry off the water up to the corner of the cellar, dug the bottom inside the tank, sloping and dishing; we then obtained rubble-stone, of which we have plenty, and set the bottom all over with them, in scientific order; then gathered pebble-stone and covered the rubble, which made a most permanent foundation for the cement, which we laid on about two inches thick. The tank makes a tight and durable hog-pen, and saves all the dropping, liquid and solid, being directly under the stable. It requires a large amount of absorbing materials to be thrown in, in order to save all; save all the liquid, which adds very much to the manure heap. The manure appears to be of excellent quality. How it will prove time and the crops will tell.

Calvin Smith.

West Henniker, N. H., May, 1858.

ENTOMOLOGY.

This is a word which means *a talk about insects;* it is derived from two or three Greek words, as many of our words are that are used as names to insects and flowers and plants. Writers upon insects find it necessary to classify them, bringing those of the nearest corresponding structure together, and giving them one general name. These divisions are called *Orders*, and there are seven very generally adopted by naturalists, which are as follows, viz.:

1. Coleoptera. The insects included under this term are *Beetles*, that is, a *biter*, an insect that *bites*. Their wings are covered and concealed by a pair of horny cases or shells; hence the order to which these insects belong is called Coleoptera, a word signifying *wings* in a *sheath*.

2. Orthoptera. Including *Crickets*, *Cockroaches*, *Grasshoppers*, &c.; their wings, when not in use, are folded lengthwise in narrow plaits like a fan, and are laid straight along the top or sides of the back. They belong to the order *Orthoptera*, which means *straight wings*.

3. Hemiptera. *Bugs*, *Locusts*, *Plant-lice*, &c. These insects have a horny beak for suction, and four wings, which lie flat, and cross each other on the top of the back. They are called *Hemiptera*, because that word means, *half*, and *wing*, literally *half-wings*, on account of the peculiar construction of their wing-covers, the hinder half of which is thin and filmy like the wings, while the fore part is thick and opake.

4. Neuroptera. *Dragon-flies*, *Lace-winged-flies*, *May-flies*, *White-ants*, &c. Insects with jaws, four netted wings, of which the hinder ones are the largest, and no sting or piercer. This order of insects has four membranous, transparent, and generally naked wings, having a net-work of nerves, as may be seen on the dragon-fly, or "devil's darning needle," as they are frequently called. These dragon-flies prey upon gnats and mosquitos, and if the reader will carefully ob-

serve them take their victims some still afternoon in June, he will be exceedingly interested. He must sit down quietly near some corn or other plants, having them between him and the sun, otherwise he would not be able to see the extremely small gnats that are flying or springing from plant to plant, in search of their food, or sporting in the mild rays of the sun just before it sets. At a little distance from the plants the "devil's needle," with wings outstretched and vibrating so rapidly as scarcely to show any motion, seems poised in the air, a pretty, harmless thing. Now he has changed his place—you did not see him move! but in that lightning dash his prey was secured! A more careful observation will enable you to see his motions, as well as the minute insects upon which he feeds. This dragon-fly is repulsive to many persons, but a better acquaintance with him will bring him into favor.

5. LEPIDOPTERA. *Butterflies* and *Moths*. These insects have a mouth with a spiral sucking tube, and four wings covered with scales. They belong to an order called *Lepidoptera*, which means *scaly-wings*; for the mealy powder with which their wings are covered, when seen under a powerful microscope, is found to consist of little scales, lapping over each other like the scales of fishes, and implanted into the skin of the wings by short stems.

6. HYMENOPTERA. *Saw-flies*, *Ants*, *Wasps*, *Bees*, &c. Insects with jaws, four-veined wings, in most species, the hinder pair being the smallest, and a piercer or sting at the extremity of the abdomen. They fly swiftly, and are able to keep on the wing much longer than any other insects, because their bodies are light and compact, and their wings very thin, narrow, and withal very strong. The males have no weapons of offence or defence except their jaws. The females are armed with a venomous sting, concealed in the hind part of the body. The word *Hymenoptera*, is from two Greek words, meaning a *membrane*, and a *wing*.

7. DIPTERA. *Mosquitos*, *Gnats*, *Flies*, &c. Insects with a horny or fleshy proboscis, two wings only, and two knobbed threads, called balancers or poisers, behind the wings. The word *Diptera* signifies *two wings*. Various kinds of gnats and of flies are therefore the insects belonging to this order. The proboscis or sucker, wherewith they take their food, is placed under the head, and sometimes can be drawn up and concealed, partly or wholly, within the cavity of the mouth.

If the farmer were to give a little more attention to these busy out-door people who occupy his farm with him, who are his constant companions, who sometimes aid and sometimes injure his plans, while they are enjoying their brief life and seeking to perpetuate their kind, he would find an interest in them which would almost repay him for partial losses of crops. That attention might also lead him to such a knowledge of their habits as to enable him to prevent any injury from them.

There are several excellent works upon the subject of insects, the best of which, for the common reader, may be "Harris' Insects Injurious to Vegetation." "Fitch's Noxious Insects of New York," is also a popular and reliable work. There is also Koller on Insects, and various works describing the insects of particular States or other localities.

For the New England Farmer.

REASON AND ANIMALS.

Walking along the streets of Boston a few days since, my attention was called to the motions of a blind man led by a large black dog, to which a string was attached, one end of which was held by the hand of the man. While passing along the walks between the cross streets, there was no more than ordinary interest exhibited by the dog for the man. He occasionally looking around to see if his master was feeling his way with his cane successfully, and was not jostled by the passers by, trotted on or walked as he saw his way clear, or as the will of his master determined. There chanced to be a wide street crossing their path to which they were approaching, and my curiosity was excited to know the result of their attempt to cross. As they came near to the side of the walk, the dog stopped, and the man, governed somewhat by the sound in the street, and by the dog, slackened his pace, and immediately commenced feeling with his cane for the curb-stone; having found it, he stood near it and prepared himself to step down at a moment's warning from the dog. In the meanwhile the street being full of vehicles, the dog looked up the street to the left, and down to the right, looked as did the gentlemen and ladies who gathered about him, for an opportunity to cross, without being run against, or hurrying ungracefully over. Soon the street became clearer, and nearly free of wagons, only one remained in the street. Most of the pedestrians were passing over; but the dog did not start, the reason we found to be, a wagon which was coming in the distance rattling along which he had caught sight of, and had calculated truly that he could not cross before that came along, and accordingly he waited for it to pass. But he had evidently determined to cross when that had passed, as he exhibited a careless restlessness, as if no alertness was needed at present, but a patience in waiting that the wagon might pass and allow him to put into execution the result of his reasonings, that of taking advantage of the opportunity which would certainly be presented. When the vehicle was abreast he started, and the man with one step was in the street, and with the use of his cane and the constant pulling of the dog on the string he hurried safely over.

This may be seen most any week in this city,

and to our minds is no extraordinary display of reason on the part of a dog. But it brought to my mind forcibly the somewhat prevalent belief that the chief difference between man and the animals is, that while the former has reason, the latter has not. I think that facts in regard to animals, and their habits, have come within the observation of most persons, that ought to convince them that in respect to reason, men, and some animals, at least, are alike. As there is evidently a radical difference between them, I think it may be wholly accounted for, by the theory that animals have no conception of virtue or vice; that they have not the power to know moral right or wrong. To them the moral world has no existence. The fear of man will account for many exhibitions by the domestic animals, which are analogous to contrition or repentance in man.

This instance of the man and his dog does not so much suggest these thoughts, as the fact that I recently heard the statement, "that animals do not possess reason," stated by a public speaker to an audience, in such a manner, that, in his opinion, at least, it admitted of no doubt. L.

EVENING HOURS FOR MECHANICS.

One of the best editors the Westminister *Review* could ever boast, and one of the most brilliant writers of the passing hour, was a cooper in Aberdeen. One of the editors of the London Daily *Journal* was a baker in Elgin; perhaps the best reporter of the London *Times* was a weaver in Edinburgh; the editor of the *Witness* was a stone mason. One of the ablest ministers in London was a blacksmith in Dundee; and another was a watchmaker in Bauff. The late Dr. Milne, of China, was a herd-boy in Rhyne. The principal of the London Missionary Society's College at Hong Kong was a saddler in Huntley; and one of the best missionaries that ever went to India was a tailor in Keith. The leading machinist on the London and Birmingham Railway, with £700 pounds a year, was a mechanic in Glasgow; and perhaps the very richest iron founder in England was a working-man in Morap. Sir James Clark, her Majesty's physician, was a druggist in Bauff. Joseph Hume was a sailor first, and then a laborer at the mortar and pestle in Montrose; Mr. McGregor, the member from Glasgow, was a poor boy in Rosshire. Jas. Wilson, the member from Westbury, was a plowman in Haddington, and Arthur Anderson, the member from Orkney, earned his bread by the sweat of his brow in the Ultima Thule.—*Maine Farmer.*

FACTS ABOUT PHOSPHORUS.

It is now just two hundred years since phosphorus was first obtained by Brand, of Hamburg. So wonderful was the discovery then considered, that Kraft, an eminent philosopher of the day, gave Brand $300 for the secret of its preparation. Kraft then travelled, and visited nearly all the courts of Europe, exhibiting. Phosphorus resembles bees-wax; but it is more transparent, approaching to the color of amber. Its name, which is derived from the Greek, signifies "light-bearer," and is indicative of its most distinguishing quality, being self-luminous. Phosphorus, when exposed to the air, shines like a star, giving out a beautiful, lambent, greenish light. Phosphorus dissolves in warm sweet oil. If this phosphorized oil be rubbed over the face in the dark, the features assume a ghastly appearance, and the experimentalist looks like a veritable living Will-o'-the-Wisp. The origin of phosphorus is the most singular fact concerning it. Every other substance with which we are acquainted, can be traced to either earth or air; but phosphorns seems to be of animal origin. Of all animals, man yields the most; and of the various parts of the body, the brain yields, by analysis, more phosphorus than any other. This fact is of no little moment. Every thought has, perhaps, a phosphoric source. It is certain that the most intellectual beings contain the most phosphorus. It generally happens that when a singular discovery is made, many years elapse before any application of it is made to the welfare and happiness of man. This remark applies to phosphorus. —*Johnston's Chemistry.*

THE FLESH OF EXTRA FAT CATTLE.

There is a very general desire among raisers of stock-beeves, hogs, pigs, sheep, &c., for the shambles, to produce animals that will greatly surpass the average of their fellows in the accumulation of flesh or fat. They take peculiar pleasure in stuffing an animal with rich food until it becomes such a mass of fat as almost to lose the use of its limbs, when it is duly weighed and its enormous ponderosity is heralded as an especial recommendation of the creature for table use. Nothing is more frequent than to meet with commendatory notices of such monstrosities in the newspapers. Oxen weighing a ton, hogs of six or eight hundred pounds, and calves as heavy as the parent cows, seem to be among the legitimate marvels which the press is bound to notice. This tendency to secure excessive weight and corpulence in animals, is also observable in the fat cattle offered for prizes at agricultural exhibitions, though not to so great an extent, perhaps, as above indicated.

The opinion seem to follow, too, that these gross accretions of animal matter are of superior quality for consumption. But if the same rule was applied to them that is applied by experienced judges to other articles of food, they would rate below instead of above par in the provision market. Every judicious housewife knows that excessively fat poultry is but poor eating; that mammoth squashes and pumpkins are not of so good a quality as those of moderate size; that extra large vegetables of all kinds are really inferior; and that even in the matter of fish, in regard to which there is usually very little discrimination practiced, those medium in size and flesh are the best for the table. There is a certain medium in all articles used for food, the nearer to which the production of them is kept, the more wholesome and nutritious they are.

This is not only the lesson of experience, but it is borne out by the researches of science. Mr. Frederick J. Gant, late surgeon to the military hospital in the Crimea, has recently made a very interesting investigation respecting the wholesomeness of the flesh of fat prize cattle as an article of food, which fully establishes the unfitness

of such flesh for human sustenance. Mr. Gant attended the Smithfield cattle show, and afterwards examined the carcases of the slaughtered prize bullocks, heifers, pigs and sheep which remained in London, and gives the result of his observations at great length. His conclusions are deserving of great attention not only by the breeders and feeders of cattle for the shambles, but by all consumers of meat. Mr. Gant says:

"Let an animal be fed beyond the limits compatible with health, and the superfluous fat is no longer confined to the instertices of muscular fibres, but actually invades and eventually supersedes them. The fibres then contain fat, instead of the fibrillæ, (known to anatomists,) in which reside the contractile power of muscle and its nutritive value for human food. We therefore say that such meat no longer retains its healthy structure and nutritive quality, but has actually degenerated into fat, although still presenting the semblance of ordinary muscle, and thereby deceiving both buyer and seller.

"We should therefore expect in vain to replenish our own muscles by the use of such food, nor should animals thus overfed be regarded as prize specimens of rearing and feeding. The heart, being converted into fat, no longer retains its contractile power, but beats feebly and irregularly. The blood, therefore, now moves onward in a slow and feeble current. Hence the panting breathlessness due to stagnation of blood in the lungs, while the skin and extremities are cold. Hence the stupid, heavy-headed expression of a congested brain, and the blood-stained appearance of meat after death. The slightest exertion to an animal under such circumstances might suddenly prove fatal. Were a man in this condition to present himself at an insurance office, it would refuse to insure his life at any premium. Yet, under similar circumstances, a sheep is awarded gold and silver medals, and its feeder a prize of £20.

"I would observe well, during life, the excretions, and see if their condition gave proof of over-feeding. If so, I should consider that the stomach and kidneys were overworked. Nor would I neglect the less perceptible evidence afforded by the skin, the respiration, with the state of the brain as indicated by the general expression of the animal, and the mode of carrying its head. Then, after death, I would pursue my inquiry further, and see whether my opinion of the animal, formed during life, was corroborated or reversed by the appearances of its internal organs, the condition of the heart, lungs, stomach, intestines, liver and kidneys more especially.

"All this kind of knowledge is required by physicians and surgeons in their estimate of health and disease, and is equally necessary to settle the question at issue. Instead, therefore, of pursuing the present system of rearing cattle, much as it may test the qualities of food and other matters of minor importance, let the breeders, feeders, exhibitors and prize judges alike visit the slaughter-houses; let them do this with a due knowledge of diseased appearances, and let them thus discover that system of rearing which is most compatible with the health of cattle, and which produces the largest amount of the most nutritious food for man.

"Under the present system, the public have no guaranty, and are not insured the best, if, indeed, the cheapest. The bulky withers of a fat bullock are no criterion of health, for his fat, tabular back may conceal the revolting ravages of disease. All this can alone be disclosed by an inspection of the animal's interior after death. The flesh of animals which has been produced by organs themselves diseased, is itself naturally deteriorated, and ought not to be regarded as prime samples of human food. These facts will be best understood by pathologists, but they also come home to the understandings, and certainly to the stomachs of the people."

We would suggest that the subject of fattening cattle would be an excellent topic for investigation and discussion by our farmers' clubs and agricultural associations.

HOME IS WHERE THERE'S ONE TO LOVE US.

Home's not merely four square walls,
Though with pictures hung and gilded;
Home is where affection calls,
Filled with shrines the heart hath builded.
Home!—go watch the faithful dove
Sailing 'neath the heaven above us—
Home is where there's one to love!
Home is where there's one to love us!

Home's not merely roof and room,
It needeth something to endear it;
Home is where the heart can bloom,
Where there's some kind lip to cheer it!
What is home with none to meet?
None to welcome, none to greet us?
Home is sweet, and only sweet,
Where there's one we love, to meet us!

THE STRIPED BUG, A REMEDY.—Remove all lumps and rubbish from the hill, then level and pat it down gently, filling all the remaining cracks and holes within one foot of the plants with fine dry sand, and be assured, that nine-tenths of the striped bugs visiting the premises will quickly leave for other quarters; my attention was first drawn to the subject by observing how much thicker the bugs congregated upon plants in cracked, lumpy hills than those more smooth. The striped bug is one of the first to make its appearance, and the plants being young and tender, they do the greatest amount of mischief. This putting ashes, lime and other stuff on the delicate leaves, I contend is like taking drug-poisons into the human system.—*Boston Cultivator.*

BUCKWHEAT STRAW FOR SHEEP.—One word on the benefit of agricultural papers. A few weeks since I was looking over some of the back volumes of the *Cultivator*, which I have bound, to find something I then wanted to see, when I accidentally came across a statement that sheep loved buckwheat straw. Having several loads of that straw in my barn, which was cut early and got in good order, and which I was intending to let my cattle pick from, and use the remainder for litter, I immediately went to my barn and tried my sheep, and found they ate the straw greedily. I think I shall realize enough from this discovery to pay for the paper a number of years.—*Country Gentleman.*

For the New England Farmer

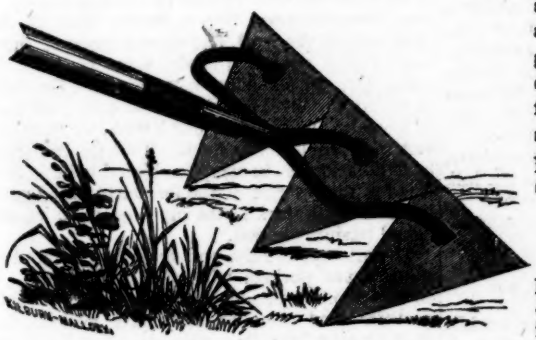
POTATOES.

MR. EDITOR:—It being about planting time "down east," I beg to make a few suggestions that will cost neither time or money to adopt.

1. Plant all small potatoes by themselves.
2. Plant large potatoes by themselves.
3. Cut the "seed end" from all varieties of large *long potatoes*, and plant separately.
4. Cut the remaining part of the large potato into quarters, and plant separately in drills twenty-two inches apart. Three to four stocks to a hill is sufficient. This latter mode in throwing away the "seed end," is Long Island fashion. The farmers say it gives them all large potatoes, without small ones, and as many pounds to the acre. Quite an object in digging time.

Mr. Editor, it was about a settled fact in my mind last year, in reading your excellent *Farmer*, that large potatoes for *seed* had the best of the argument. It is to be hoped that the matter will be fairly tested by many of your farmer readers, which may take two or three years to prove. The animal creation is made *dwarf*, or *gigantic*, by close breeding. Will not the same law apply to the vegetable kingdom, in selecting your largest, best seed to produce from? Try it.

New York, May 1st. H. POOR.



A NEW HOE.

The neat little engraving above illustrates a new Hoe which has been recently invented and introduced to the hoeing world, by Mr. H. A. LOTHROP, of the firm of H. A. Lothrop & Co., Sharon, Mass. We have used it enough to find it a pleasant implement in many places; but not enough to speak of the comparative merits between this and the common hoe.

It is claimed by the inventor to work with much greater ease, and to be equally as efficient as the old hoe, in every place excepting where it is desired to remove a considerable body of earth from one point to another.

All we can say further of it now is, that it will not cost much to try it, and it may be found to possess some advantages over the old implement which has become so familiar to our hands. It is made with two and three prongs or points.

EXTRACTS AND REPLIES.

MAGGOT IN CABBAGE PLANTS—BUGS ON VINES.

Is there anything that will prevent or destroy the maggot in cabbages? Last spring I transplanted several hundred cabbages from my hot bed, and in a short time they would turn yellow and die. I found at the roots a lot of little maggots.

I have heard much complaint about bugs among vines, especially the striped bug. Prevention is better than cure. I will tell you how I stop their ravages. In the fall of 1855 I raked up all the rubbish of my garden, including squash and cucumber vines, and burnt them; the next spring I found no bugs on my vines, while my neighbors' were destroyed. I have practiced it since, and have not been troubled except now and then by a stray one from my neighbors' gardens. S. D.

South Hanson, May, 1858.

ARBOR VITÆ FROM SEED.

I wish to inquire if the *Arbor Vitæ* can be propagated from seed; when it should be planted; and where it can be obtained?

Holliston, 1858. C. J. HEATH.

REMARKS.—The arbor vitæ flowers in May and ripens its cones in the following autumn. The seed should then be gathered, sowed in a very fine soil, moderately rich, covered quite lightly with fine loam, and then a few leaves or straw scattered over them. We suppose the seed may be obtained at the seed stores in Boston.

PUMPS AND PIPES.

I wish to inquire which is the best kind of pumps and pipe for wells? Are copper pumps objectionable, and what is the best substitute for lead pipes? What do you think of zinc pipe, or block tin, or gutta percha? There is also a kind of stone pipe made which is glazed with salt. I would also like to get Dr. Alcott's opinion upon these points. A NEW SUBSCRIBER.

Fitchburg, May, 1858.

REMARKS.—In the situation of your well, a good wooden pump and pipe, or bored log, is better than any thing else.

TIMBER—POTATOES—MANURE—ROSE BUDS.

Is it as good time as any to cut timber as soon as the leaves get their growth? *(a.)*

Will potatoes keep as well on a cement, as a sand cellar bottom? *(b.)*

I have read that the potato rot is almost, or entirely unknown in countries where there is no mildew. If such is the case, is there not something in the shape of powder, or solution, that can be applied to the tops to prevent the rot? *(c.)*

What potato sells the best in the Boston market? *(d.)*

Which is the best for green manure, clover or lucerne, and how should it be plowed in? *(e.)*

Will rose-bud seeds come up, if planted, and when should they be planted? *(f.)*

Branford, Conn., 1858. O. C. HOADLEY.

REMARKS.—*(a.)* September is considered the best time to cut timber.

(b.) Cannot see why they would not.

(c.) If the rot is *not* occasioned by an insect, perhaps the application of some kind of salt, either alkaline, or something else, might prevent the rot.

(d.) No one in particular. The State of Maine, the Irish Cup, the Chenango, Peach Blow, Jackson White, Jenny Lind, and many other kinds, are constantly sold, some kinds preferred by one, and some by others.

(e.) Cannot tell—never tried lucerne. Cut the clover and let it partially dry before it is plowed under. It will not then pass into rapid fermentation and drive off the sugar and starch which it contains.

(f.) Plant the buds in the fall, and cover slightly with leaves and fine loam.

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DOES SUPERPHOSPHATE PAY?

Last year I planted my corn with about a spoonful of Hoyt's bone superphosphate of lime in the hill, which cost about the same as the labor of manuring in the hill; the manure having been previously spread and plowed in. The corn came up quick, grew fast, ripened early, and produced a rich harvest of good, sound corn. I calculate that I got double pay for the phosphate. First, it saved the labor of manuring in the hill, and secondly, it increased the crop of corn.

Yours, &c., SAMUEL W. FOSKETT.

Charlton, Mass., 1858.

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WHAT WILL DESTROY ANT-HILLS?

Will you inform me how I may kill an ant hill that has been among my flowers two years? I have tried scalding and ashes, but with no success. M. GREENLEAF.

Wiscasset, Me., May, 1858.

REMARKS.—Open a hole in the hill, put in some light wood and set it on fire—keep it burning for two or three hours.

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WHICH IS THE BEST HORSE-RAKE?

I intend to purchase a horse-rake, and wish to inquire which is the best? The only kinds much used in this vicinity are the revolver and spring tooth; of the two, I much prefer the revolver, but if there is any kind superior to it, I wish to obtain it. My land is not very stony, neither is it entirely clear of them. W.

Fitchburg, May, 1858.

REMARKS.—We have used nearly all the horse rakes that are common, and give a decided preference to Delano's Independent action. It is simple, strong, and does the work effectually, without gathering up any more rubbish than a hand rake will. For sale at Nourse, Mason & Co.'s, Quincy Hall, Boston. Price about $12.

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ASHES ON POTATOES AND CORN.

Permit me to ask the opinion of some of your correspondents as to which is the best manner of using ashes on potatoes and corn.

Atkinson, N. H. NORMAN MATHEWS.

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A BIG CALF.

MR. SOLOMON RICHARDSON, of Westford, Mass., has a calf one year old that weighs 650 pounds—native breed. G. B.

Westford, May, 1858.

For the New England Farmer.

HORSES.

MR. EDITOR:—I have lately read several articles in the newspapers treating of thorough-breds, with occasional sneers at some races of horses that are in high repute among us. As far as I am able to observe, the principal excellence claimed for thorough-breds consists in their racing qualities. I confess myself so "puritanic," that I am unable to see any benefit to the community arising from horse-racing. It does not produce a dollar, or aught that can feed or clothe or promote the real welfare of the community. I have owned several horses, driven them at the plow and on the road, and though none of them were called thorough-breds, some of them in style, strength and endurance, were good enough to satisfy the most fastidious. We are told that to keep up the blood of our horses, we must resort to thorough-bred stock. That the Morgans have deteriorated in size, &c. Now I believe that it is for the interest of the farmer to breed such horses as will work at the plow, or, in short, are "good business horses."

The attempt to raise and train fast horses has emptied two pockets where it has filled one. I do not deny to imported horses many valuable qualities, and some of them have become the progenitors of excellent animals. But I protest against this attempt to spread the foolish idea that it is for the interest of our farmers to breed from none but thorough-breds, so called. Our Morgans and Black Hawks are not the mere "runts" that some of the city papers speak of. Come up here into the country, and I will show you a plenty of Morgans and Black Hawks, whose weight, from ten to fourteen hundred pounds, is sufficient for most purposes. A writer in the *Tribune* stated that it was "acknowledged" that the Morgans had deteriorated in size. Acknowledged by whom? Not by Vermonters, in the State where they have been bred for about fifty years. I do not know what kind of a pony has been seen in the city, but so far from deteriorating in size, very few can be found that are not heavier than Old Justin, the sire of the race, whose weight never came up to one thousand pounds.

As for strength or endurance, I had rather have the smallest Morgan pony that can be found, than one of your light-limbed, long-legged, long-necked, rat-tailed thorough-breds. Running a

mile in 2.40 is no part of the proper use of a horse. Give me a good sized, well formed animal that is able to draw a load, trot in the buggy eight or ten miles in an hour if need be, and when he is properly cared for, will repay that care with something besides laziness and unsoundness. I love to feed such an animal. He will *earn* his living, not gamble it out of fools' pockets.

If speed were the object, I think the profound critics on Morgan horses might learn a little modesty, and wait until they could match Ethan Allen, to say nothing of young Morrill, owned at Manchester, N. H., who by-the-bye is a very fast going handsome trotter, and can hardly be matched by any thorough-bred entire horse in the country. One of his colts owned at Laconia, N. H., by L. T. Tucker, Esq., trots down close to 2.40. Also the North horse. sired by old Black Hawk, a splendid animal, going in 2.40 or less. But enough of this.

I desire to see our farmers turning their attention to raising a class of good roadsters, such as we have seen in times past—horses that can work every day. Brother farmers, when you have a good mare that will command a good price, keep her for your own service; do not sell her to the first man who offers a fair price. Keep her to raise stock, and for service on the farm; you will find it a good investment. PLOW JOGGER.

Addison, Vt., May 6, 1858.

For the New England Farmer.

CROSSING PUMPKINS WITH SQUASHES.

WHERE DOES THE SQUASH BORER COME FROM?

MESSRS. EDITORS:—Your correspondent "A. M. P.," in the *Farmer* of April 17th, has thrown the light of his experience on the question proposed by "Essex," in January last; but as Essex appealed directly to Marblehead as an "overflowing fountain" on squash culture, perhaps she may yet be allowed to throw a little mist over the subject, in the summing up of her experience.

On a pretty extensive inquiry among our farmers, I meet with one vital trouble at the outset, and that is, that from the value of our land for high cultivation, owing to the facilities presented by a good soil, good markets and abundance of valuable manures, the culture of pumpkins for the past ten or fifteen years has almost been obsolete. The summing up of their experience previous to the general introduction of the marrow-squash, amounts to this: that the squash and pumpkin will cross; which they have seen in the squash assuming the shell of the pumpkin, somewhat of its color, and when thus characterized being inferior in quality; that they never have seen the squash take upon itself the form of the pumpkin.

The experience of one gentleman was striking. Several years since a neighbor whose land was adjoining, planted a few hills of the old-fashioned "nigger pumpkin" near by a large crop of marrows, a common wall intervening. For several years previous to this his marrows had been exceedingly pure, but since that date, with the utmost care in selecting his seed he has always had some among his marrows with a hard pumpkin-like shell!

There appears to be a general impression among farmers that the borer, that has proved himself of late years so troublesome to the squash-vines in many sections, ascends from the ground and bores his way into the plant. Your correspondent from Spring Grove, in the *Farmer* of April 17th, appears to have adopted that theory; I have also noticed it interwoven into some of the reports included in the transactions of our County Agricultural Societies.

If gentlemen will turn to the treatise of the late Dr. Harris, on "Insects injurious to Vegetation," they will find that that most original observer traced the parentage of the borer to a species of the coccinella, lady-bird or lady-bug, as it is variously known. This insect deposits its eggs in the vine at about the time of the pushing of the runners. It may be recognized by its resemblance to the common lady-bug in form, being larger, of the size of the half of a large pea, and its back having a red groundwork, spotted with black. I quote from memory, but believe I am substantially correct.

Marblehead, Mass. J. J. H. GREGORY.

CURE FOR THE GARGET.

Some two or three years since we published the following recipe for curing garget, and from actual experiment in this vicinity, we know it to be a good one. Mr. Lowell Greenleaf writes to one of our agricultural exchanges, (we have lost the credit,) giving an account of his trials of the receipe, and its results, as follows:

"Having had a cow that was almost worthless on account of bunches in the udder which rendered the milk bloody, stringy, and not fit for the hogs, I was on the eve of giving her up for lost, when I used the following recipe, which in three weeks restored her to perfection, and not the slightest symptom of garget has appeared since. I could cite numerous cases of perfect cure. And not only doubling the ouantity, but improving the quality of the milk and butter. Since I applied this remedy, my cow has, in two years risen in value from $20 to $75:

Recipe.—"An ounce and a half of hydriodate of potash, at 440 grains to the ounce, will contain 660 grains. Put the whole into a glass bottle of sufficient capacity, with fifty-five table spoonfuls of cold water. Shake briskly, and it will be thoroughly dissolved in a few minutes; one table spoonful will contain a dose, the requisite quantity of twelve grains. Wet a little Indian meal or shorts and thoroughly stir in the dose. Give two or three doses a day. Keep the bottle corked tight."—*Ex.*

SOOT.—In England this is saved and applied to the wheat and other crops, with great returns. In this country, it is too often thrown into the street and lost. About eighteen bushels are a good dressing for an acre. Several salts of ammonia, magnesia and lime render it too valuable to be wasted. As a liquid manure for the garden, nothing is better than three or four quarts of soot dissolved in a barrel of water, and applied with a watering pot. Almost every family may, as well as not, preserve a few bushels of it. It is good for any kind of grain; also for roots, especially potatoes and carrots; and nothing except Peruvian guano, which it is silly to buy, and at the

same time throw away about as good an article, is equal to it for giving a rich bloom to flowers. Save your soot and you may have the richest vegetables and the brightest flowers.—*Plow, Loom and Anvil.*

THE MILK TRADE OF BOSTON.

The reading of a small book several years since, entitled "*The Milk Trade of New York,*" together with certain facts which came to our knowledge, and several observations made from time to time in regard to matters quite nearer home, led us to make some investigations into *The Milk Trade of Boston.* These investigations have been going on with more or less care and earnestness for the space of two years, and have led to results which, when stated, will not fail to startle some of the upright and confiding consumers of milk in this city.

In the first place, the milk trade of Boston has reached a magnitude, in a commercial point of view, which gives it importance, as employing a large number of men and teams after it leaves the farm, and has been transported over the railroads into the city, or is brought here in wagons. This goes to make up a part of the active business of the city, and in this point of view alone, is worthy of consideration.

We find by the investigations instituted, that the value of the milk annually brought to the city, as it comes from the country, is about *one million of dollars*, and that, *as it is sold out to the consumers*, it has swollen to the sum of *one million two hundred and fifty thousand dollars!* the *two hundred and fifty thousand dollars* being the charge for carrying the *Cochituate water* through the streets, and peddling it out at six cents per quart! This may seem a strong statement, but we have the facts to justify us in making still broader ones, or even to make specific charges, which it may yet become necessary to do.

That the milk leaves the country pure, as a general thing, there is no reason to doubt. This point has received attention, and the facts elicited all go to show that a few instances, only, have been found where there was an adulteration of milk on the farm. Those who purchase and collect milk in the country, are vigilant and shrewd men, not only constantly examining the milk as it is sent to them, but visiting the places where it is made, to learn whether the cows who yield it are in good condition, and whether it is put up in a cleanly and wholesome manner. There are also other eyes than their own engaged for them, so that there is very little probability they can long be deceived by any producer who might be sufficiently corrupt to attempt it.

Happily for the consumer, and perhaps, happily for the *seller*, too, there is an instrument now in use by which any considerable adulteration of milk with water, or reduction of its cream, can be ascertained with certainty, and at a cost so trifling as to enable every family to own one, and to put it into practical use. This statement is made considerately, after many personal tests ourself, and with the certificates of other persons before us who reside in various parts of the State, all going to substantiate it. One of the tests instituted was as follows:

During the month of January last, we purchased, in person, from those usually selling it, a single pint of milk at a place, *from every part of the city of Boston.* Each parcel was placed in a bottle by itself, and the name of the person of whom it was purchased, together with the name of the street and number of the place of business, entered upon a card and tied to the bottle. When a large box full of these samples had been collected, the milk was taken into the presence of several impartial business men of the city and tested. Before giving a dozen of the cases as examples, we will state that in the *pure* milk (*of all cows,*) the instrument will stand at the degree marked 20, and that as it rises above that point it indicates the amount of water introduced; so that if it stands at fifteen, the instrument being graduated downwards, it is one-fourth water, if at 10, one-half water, and so on.

The following table will show, by this instrument, the amount of water mixed with each sample, viz.:—

Case.	*Degree.*	*Adulteration.*
1. —— Street	19½	nearly pure.
2. —— Street	17	15 per cent. water.
3. —— Street	13	35 " "
4. —— Street	17	15 " "
5. —— Street	15	25 " "
6. —— Street	17	15 " "
7. —— Street	10½	47½ " "
8. —— Street	21½	skim milk.
9. —— Street	14	30 per cent. water.
10. —— Street	13½	32½ " "
11. —— Street	13½	32½ " "
12. —— Street	15½	22½ " "

These results show that nearly—but not quite—*one-quarter part* of all that is sold for milk in Boston, *is water.* The samples collected were from all classes of places, including the good and bad, and were probably a fair average of them all.

The question now arises, who is justly chargeable with this corruption and fraud upon our people? Our investigations have not left us without some pretty tangible evidence on this point.

Some of the places where this adulteration takes place, together with the method of coloring, and other parts of the *modus operandi*, are much better known than the participators in this wicked work are aware of. That the milk comes pure from the country, as a general thing, we have no doubt; it then passes through the hands of the milk distributors or peddlers, where it pro-

bably receives its first dilution, and then into the hands of the grocers, where it is brought into the limpid form of cases Nos. 3, 7, 10 and 11, in which it would be difficult by the taste to tell whether milk or water prevails.

But this is not all. In many cases the milk is deprived of its cream either before or after it is watered, or perhaps in both cases,—so that the consumer after paying the highest prices for his milk and water, pays from 17 to 25 or 30 cts. per quart, for *his own cream!*

But the worst aspect of the case, after the *criminality* of such transactions, is the effect that such milk has upon the health of the people. Milk is now resorted to, not only by the feeble and infirm, but by the robust and healthy, as a cheap and wholesome article of food; and at a proper age and in a pure state, it unquestionably is so. So it forms a large portion of the food of numerous children who are, from constitutional or other infirmity, unable to partake of solid food. But does milk that has been mingled with water from twelve to twenty-four hours, and then trotted through the city and doled out in pints and quarts, retain the precise qualities of *pure* milk—or has it received some chemical change, which makes it neither milk nor water, and an article entirely unfit for use, and especially for the sick? We make no claim to an exact knowledge either of chemistry or physiology, but believe that such change actually does take place, and that those persons engaged in this abominable adulteration and traffic ought to be classed with those who poison wells, although their crime may be somewhat less in degree. Some of these persons, together with their practices, are well known, and they may be thought entitled to more special attention hereafter.

Other persons have been engaged with us in these investigations, who may possess facts which we have not given; we hope they will make them known, and that every consumer in the city will lend an influence to suppress this illegal and infamous traffic in an article which is second only to the "staff of life" itself.

A NEW THEORY ABOUT HOG CHOLERA.—On dissecting a hog which had died of cholera, Dr. Dougherty comes to this conclusion: That the disease is not in the brain, spinal marrow, lungs, liver, heart, or stomach. The large bowel and part of the small were without disease, but that portion of the small bowel next the stomach was literally filled with worms for several feet, and was highly inflamed. The worms were from two to five inches in length, hardy, active, and tenacious of life. They were crowded so closely in the bowels that their forms could be distinctly traced through their coats. The doctor thinks these the cause of the evil, and thinks that the treatment must be altogether preventive.

For the New England Farmer.

LETTER FROM AN ENGLISH FARMER.

MY DEAR BROWN:—When you go to Old England, and find yourself alone in a strange land, should you chance to meet a man who has faith enough in human nature to invite you to join him in his travels, to take you to his home, and show you such attentions as are usually bestowed only upon near friends, you will feel that sort of gratitude towards him, that I feel towards the writer of the enclosed letter. Among the pleasant pictures of English life, upon which I shall always look with pleasure, one of the most pleasing is that of my friend Lowe's nome at Brauncewell Manor, where, with his large and agreeable family, he farms his thousand acres, as independent as any lord of the land. He will pardon, I trust, the liberty I take in publishing a part of his private correspondence, but it is so illustrative of the difference between our own land and the mother country, that I know it will interest our readers, and it seems a pity they should not enjoy the privilege of reading it. The expression "wheats will cover a hare," which to many readers would convey no idea, is full of significance to one who knows something of the preservation of game in England, and who has seen the little rascals sitting up in the pastures, by scores, or skulking among the half-ripened grain, destroying what they please. The wheat is sowed in autumn, and by April 7th had grown well to afford cover for game. I hope my friend will favor me with more reports from Lincolnshire, for comparison with our own affairs. I am sure, at least, that I shall not soon forget the old yew trees and the purple beeches around the manor house, nor the kind hearts of those who sat in the sultry summer evening, with me in their shadows. Truly yours,

HENRY F. FRENCH.

BRAUNCEWELL, APRIL 7, 1858.
SLEAFORD, LINCOLNSHIRE, ENGLAND.

HON. H. F. FRENCH:—*My Dear Sir,*—Do not suppose we have forgotten you, though we do not write; few days pass that some of the family or friends do not refer to Mr. French, to his observations or writings. P.'s question yesterday, "Papa, do you think Mr. French will come this summer?" brought before me our Welsh tour, Lincoln Tower and Haddon Hall. Those were pleasant sunny days for her and me. We thoroughly enjoyed your visit. I would it were possible to have a fortnight with you and W. in Devonshire in the Peak Country and at Rokeby—Sir Walter's Rokeby—between turnip-sowing and harvest, generally the best time of the year, and usually the only time we farmers have at our disposal. Yours is indeed a long, long winter; it is well you have no poor. In the short summer how do you contrive to get your work done? Where do you get labor from? I understood you to say that, for the most part, the farmer's fami-

ly perform the work upon the farm except upon large holdings. Your New England farmer does well to talk about *neatness* and *ornaments* around dwelling-houses, planting orchards and flower-gardens; and you, yourself, set him at work to drain his land. Poor farmer! he can have but little time for Sundays. We have not lost four weeks in three winters—the three last I mean—else the horses and men have been at work. The draining has all been done in winter; we have an unlimited staff, and we *never* get all our work done that is set out. *How then do you manage to perform the requisite work within the proper time?* Your people must be killing themselves, I should think, and your animals have some sore shoulders, I should guess, sometimes.

We have had a most singular autumn and winter—no wind for three months after harvest, and the leaves staid upon all the trees until the end of November. I should think our woods were nearly as beautiful as your own forest scenery that you so well describe. The apples would have staid upon the trees until Christmas, and many of the pears did so. M. gathered a dessert-plate full of raspberries at the Moor on the 8th of December. We have had no rain until to-day, and but one inch of snow, and that drifted; we have only lost five days with the horses all winter. I have set 33 acres beans, which are up; 153 acres barley, most of it is up; 20 acres oats. I have 10 acres of Swede turnips to eat off with the fat sheep, and then sow with barley, and then the seed-time will be finished for this spring, excepting clovers, rye-grass, &c., which, as we now put them in with the broad drill, we leave until more at liberty than was usual formerly.

All the land that is for turnips this season has been plowed—cross-plowed—twice three-horse dragged—twice harrowed, and is now, when dry enough, ready for the roll. Some has been raked and is ready for the third plowing. Wheats about here will cover a hare, are very dark in color, and having been growing all winter, is rather too thick, but not dangerously so. There has not been such a winter since after the long summer of 1826. The mangolds are doing good service now; we are giving them to the ewes and lambs. They are the best article for milk that ever was used for that purpose; if you attempt them on your own place, *do not forget the salt.*

I should very much have liked to hear your lectures upon us all, last winter. I rather think we should not have found them all compliments.

We have received several copies of the *Farmer*, a report from the Patent Office, and newspapers. We have read all with pleasure, but with most interest look out your own contributions. That article of yours in the Patent Office report on draining, is well done, particularly well done. W. seems to hesitate about sending anything to the *Farmer*. He says the contributors to that paper farm the same as our Midland Counties. Where there is a difference, it is in favor of America. They appear to understand their business thoroughly.

We shall be glad to see all the *Farmers* that contain your letters; please advise how to remit the subscription.

Trusting that we shall continue to hear from you, believe me very sincerely, yours faithfully,

RALPH LOWE.

For the New England Farmer.

FARMING IN LEBANON, CONNECTICUT.

MR. EDITOR:—Lebanon is considered one of the best towns in New London county for raising general crops; such as grain of all kinds, and potatoes, which are generally very productive. Considerable attention has, of late, been paid to the raising of onions, of which almost every farmer has a small patch, and they are a very profitable crop. Almost all the new kinds of seed have been tried, to some extent. Of the new kinds of corn we have tried the King Philip, Wyandot and Rhode Island Premium. Of these three kinds I shall class the Rhode Island Premium as No. 1, as it yields more corn to the acre than either of the others, although the King Philip is a very good kind, and I doubt not, a very profitable kind to raise.

We have tried all the new kinds of manures; such as guano, and phosphate of lime, &c. Guano does very well on some kinds of soil, but, as a general thing, we do not think it pays very well.

We have some fine stock here. Many of the farmers have adopted a rule of raising from three to seven good likely calves every spring, and as soon as they get to giving milk, if they have any cows which are not good milkers, they are fatted, and their place made good by the heifers, and so on, from year to year until they get a good herd of cows.

Sheep are also raised to some extent, but most of the land is better calculated for raising other stock. H. P.

Lebanon, Conn., 1858.

VALUE OF BUCKWHEAT.

A late issue of *Hunt's Merchant's Magazine*, in an article upon buckwheat, thus speaks of it concerning its properties as an edible:—"Considering the good qualities of buckwheat, it is probably less appreciated than any other bread grain. Writers on agricultural products seem to eschew it as food for man, and regard it only as a mischievous adulteration of wheat flour, or as a product of poor soil for cattle. It is of a totally different family of plants from the cereals, and will flourish on sandy hill-sides which are barren for other grain. It is probably the most easily cultivated, and the cheapest bread grain in the world. It is extensively cultivated in Belgium and some parts of France, where it forms the basis of food for the inhabitants. Though its properties are very different from wheat, it is, nevertheless, quite as rich in all important compounds, and in extremely cold weather, it is more substantial than wheat. It is, however, less digestible, and apt to disagree with weak stomachs, or persons unaccustomed to it. By analysis, buckwheat is second to wheat, in gluten, but deficient in starch. By the addition of one-fourth quantity of oat, or Indian meal to buckwheat flour, the bread is very much improved."

WARM WATER FOR CATTLE.—Mr. Peter Malbon, Jr., of this town, has devised a very curious and ingenious plan to warm water for his cattle, as well as to prevent the water from collecting in the tub. It consists of a small cast iron chest, or box, about twelve inches square, made water-

tight, fixed in such a manner that one side of it forms so much of the fireplace at is exposed to the heat of the fire. The water of the aqueduct, in its course from the fountain to the yard, is made to pass into this box at one end, and thus, becoming heated, passes out at the other end, and continues to the yard, which is across the road, and about six rods from the house. Mr. Malbon, previous to adopting this plan, had a good deal of trouble with the ice forming in his tub, but has very little trouble of that kind now. He says his cattle drink much more than they would if the water was cold, and he believes it to be more healthy for them. The calves enjoy it so much, that when let out to drink they will fight for the warm end of the tub.—*Somerset Telegraph.*

PICKLED FODDER.

MESSRS. EDITORS:—Not having seen in any agricultural journal of the U. S. the method of making hay, or rather preserving grass without sunshine, as practised in East Prussia, I communicate the same, in hope that some of the readers of your valuable paper may test the experiment, and publish the result in the *Homestead.*

The process is as follows: "Pits are dug in the earth twelve feet square, and as many deep; those are lined with wood, and puddled below with clay. They may be made of any other size, and lined with brick. Into this pit the green crop of grass or clover is put, soon as cut. Four or five hundred weight (cwt.) are introduced at a time, and sprinkled with salt, at the rate of one pound to each cwt., and if the weather and grass be dry, two or three quarts of water should be sprinkled on to each hundred weight, as it is laid down in successive layers.

It is only when rain or heavy dew has fallen that this watering is considered unnecessary. Much, however, must depend upon the succulency of the crop. Each layer of four or five cwts. is spread evenly over the bottom, is well trodden down by five or six men, and is especially rammed as close as possible at the sides, by wooden rammers. Each layer is thus salted, watered and trodden in succession till the pit is full. Much depends upon the perfect treading of the grass to the exclusion of the air. Between each layer of four or five cwts., a thin layer of straw may be sprinkled in order to show the quantity consumed when feeding out to stock. When the pit is full, the topmost layer is well salted. The whole is then covered with a well-fitting lid or follower of boards or planks, and then a foot and a half of earth shovelled thereon, similar to the covering of a coal-pit. This is to exclude the air. The grass thus covered speedily ferments, and in about a week sinks to about a half of its original bulk. During fermentation the covering should be examined daily to see if there are any crevices or openings, if so, they should be carefully filled. When the first fermentation has ceased, the pit may be opened and filled up again in the same manner as at first. A pit ten feet square filled in this way will contain nearly ten tons of this salted grass, which has the appearance of having been boiled, has a sharp acid taste, and is greedily eaten by the cattle. After once opened they may be left open without injury. One experimenter says that giving only twenty pounds per day of this feed with cut straw, kept his cows in excellent condition all winter.

FORREST SHEPHERD.

New Haven, Nov. 2, 1857.

REMARKS.—We give the above, not expecting that our friends will immediately adopt that mode of making their hay, but to show how differently from our own practice the mode of *hay-making* is in another part of the world.

ROOFS AND ROOFING.

MR. EDITOR:—I saw the remarks of R. C. Norton in the *Farmer*, No. 51, on the subject of Roofs and Roofing. Since reading said remarks, it has seemed to me that there might be a resinous substance prepared, and laid on with a caulker's mop, upon a tightly boarded roof, that would be impervious to water, and fire-proof on the outside. Tar and turpentine, or other like substance boiled down to a proper consistency, so that it could be laid on hot; and after the roof is well covered with it, sift on a coat of sand, and let it harden, then lay on another coat, and sand as before, and continue these alternate coatings of "half-made stuff," (as the caulkers call it,) and sand until the whole coating shall be ¾ to ½ an inch thick, the last coat of "stuff" to be more soft and pliable, to admit a good coating of fine sand to complete it. This coating to be used instead of shingles. The roof boards must be well seasoned, the side of the board next the heart of the log, laid up and snugly fitted together.

Will you please give your views upon the question? Whether or not such a mode for covering a roof could not be profitably used, instead of shingles, &c. I have a roof which I should like to cover with something that would be more lasting than sawed shingles. It was shingled with the best of sawed hemlock shingles in 1845 or 6, and now they are rotten and blowing off. May I not see your remarks on the mode proposed as a substitute for shingles? R. LEWIS.

Whitefield, Dec. 18, 1857.

NOTE.—We have not had sufficient experience with the use and nature of the cement or preparation proposed by our correspondent, to enable us to judge of its practical value for the purpose of roofing. We apprehend, however, that its utility will depend much whether the cold weather will contract it, and the warm weather expand it, to such a degree as to cause it to crack. A substitute for shingles, that shall be cheap in its first cost, and more durable, is a desideratum. We have examined, and are watching the uses of a new material for covering roofs, called "Russell's patent," introduced here by D. M. Walker, Esq., of Portland. It can be put upon new roofs just boarded, or on old roofs over the old shingles, at a cost of five cents per square foot. The proprietor recommends it as being very durable. Dr. Hill, of this city, has had it applied to the roof of a new house he is building. Mr. Johnson, landlord of the Central House has had it put on over the shingles of his buildings. It looks well, and promises well, but time will prove it.—*Maine Farmer.*

EATING ONE'S SELF.—As one of the Hudson River steamboats was about leaving the wharf on Saturday, two sturdy fellows were seen bustling through the crowd, with as much impatience as if they feared she would fly before they could get hold of her. Too eager to wait till he had fairly reached her, one of them, to the infinite amusement of the passengers and by-standers, vociferated an application in his broad, just-come-over dialect, as follows: "Captain! captain! or are you the mate? (and not waiting for an answer,) what will you ax to sail us to Albany—an' you to ate us? or what will you ax and we to ate ourselves?"

LADIES' DEPARTMENT.

FAIR PLAY FOR WOMEN.

At the Lowell Institute last evening, Geo. W. Curtis, Esq., of New York, delivered his lecture on "Fair Play for Women." There was a very fine audience present. He began by congratulating himself that on the theme he had chosen, there was no lyceum, no church, no party, not even a committee, to be compromised by any plain speaking. This, though a new subject, had already a literature of its own. It already counted a brilliant list of advocates; and many views which might seem novel, or, at least, unusual to his audience, were as familiar to those who had serious thought of the question as "the flowers of May;" and when we saw that something might be done, we would soon enough begin to consider how it should be done. Just in the degree that the world advanced, every question of right and responsibility in human relations was sure to come to the most certain discussion. It did no good to lose our tempers and call bad names. We might indeed suppress debate when the subject was but an infant, by laughing merrily; but when the poor little baby of a question that we laughed at had grown to be a vigorous problem, determined to be resolved, without the slightest respect for bugaboo, and quite able to endure being called vulgar and atheistic, and all the other cries of mad-dog, and when it become strong enough to hold our fists and pummel us with its own, we would very soon have to come to terms, or be reduced to an intellectual and moral jelly. So, in our day, the woman's question was coming to be quite robust. It might be an infant still, but it was a very noisy infant, and certainly was doing quite as well as could be expected. The question whether women have the same fair play for their faculties in the world that men have for theirs had become an absorbing and all important query indeed, and was not likely to be extinguished with a sneer, or put off with sops and sugar much longer. The question was not whether women were men, or whether there were differences of duties arising from difference of sex. In a general and poetic way, man might be called the head, and woman the heart; man the intellectual and directing force, woman the receptive and modifying genius. It is an instinctive requirement that every woman should be essentially womanly—though womanly could not be defined—as it was that every man should be truly manly. The sexes had their domestic relations in common, but each had duties and claims beyond the kitchen and nursery. But, notwithstanding this, the inferior position of woman in human society was apparent equally in the history of savage and of civilized nations.

Among primitive nations woman belonged to the man who seized her first; and the earlier books of the Old Testament showed how she was regarded by the Hebrews, who were polygamists, and among whom she was kept and sold like slaves. St. Paul was always a Jew in regard to woman, and many of the early Christian Fathers were positive pagans in their notions as to her duties and position. [Here the lecturer discussed the position of woman under the Egyptians, the Grecians, the Romans, among the Oriental nations and the Northern races, tracing her social progress through the chivalric and Elizabethan ages, down to more recent times.] In the history of literature, as showing the position of woman, he knew nothing more touching or beautiful than the words that well out of all the filth of the seventeenth century, written by a London hosier, who proposed, in his essay on "Projects," the plan of a college for woman, and declared, in a strain of simple, poetic, manly respect, unequalled since Shakspeare, but indicative of the general sentiment of his day: "I cannot think that God made them so delicate, so glorious creatures, to be only safeguards of his house, drudges and slaves. A woman well-bred and well-taught, furnished with all the additional accompaniments of knowledge and behavior, is a creature without comparison; her society is the emblem of sublimer enjoyments. She is all softness and sweetness, love, wit and delight."

In the eighteenth century women were the toasts of convivial hours, the toys of passionate moments, the puppets of a court, the slaves of parents and of brothers, the drudges of the household and of the field. In England, a Judge gravely held from under his horsehair wig, that a man might beat his wife with a stick as large as his thumb, and the women immediately petitioned him to know the size of the judicial thumb. But if it had not been larger than his wit or his sympathy, a cord of such sticks would not have made a baby tingle.

The whole theory of modern society was that of the Cochin China proverb, that women's hearts bear a good deal of breaking; and Goody Barlowe, towards the end of what was called and is called the sphere of woman, when she simpered, in her languid verses on flowers:

> "Gay without toil, and lovely without art,
> They spring to cheer the sense and glad the heart;
> Nor blush, my fair, to own you copy these,
> Your best, your sweetest empire is to please."

This was precisely the sentiment urged by every slave-merchant upon every Circassian girl that he brought to the market at Constantinople, and precisely the same lesson was inculcated by scheming mammas in Paris, London, New York and Boston.

Mr. Curtis proceeded to vindicate the right and capacity of women to take rank with men in the studio, the school-room—in all efforts for the social amelioration of both sexes, and concluded by ably and eloquently urging her claims to the right of suffrage, and answering all objections thereto. He was enthusiastically applauded throughout.—*Boston Journal, 6th.*